Interfaccia RS 232 / Ethernet
RS 232 / Ethernet Converter
Interface RS 232 / Ethernet
Interface RS 232 / Ethernet
Rozhraní RS 232 / Ethernet
Omvandlare RS 232 / Ethernet

Istruzioni per l'uso e la manutenzione
Use and maintenance instructions
Instructions d'utilisation et d'entretien
Instruções de uso e manutenção
Návod k použití a údržbě
Bruks- och underhållsanvisning

Schneider Electric

(IT) Istruzioni per l'uso e la manutenzione *IT-1*

(EN) Use and maintenance instructions *EN-1*

(FR) Instructions d'utilisation et d'entretien *FR-1*

(PT) Instruções de uso e manutenção *PT-1*

(CS) Návod k použití a údržbě *CS-1*

(SV) Bruks- och underhållsanvisning *SV-1*

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Premessa

Questa sezione deve essere letta prima di ogni altra documentazione e prima di intraprendere qualsiasi tipo operazione sul prodotto.

Il corretto funzionamento dell'Interfaccia RS232/Ethernet è legato unicamente all'impiego di apparecchi di emergenza SCHNEIDER ELECTRIC.

Il manuale istruzioni

A chi si rivolge

Questo manuale è destinato a personale installatore con conoscenze adeguate per intervenire in sicurezza su sistemi hardware e software.

Importanza del manuale

Il presente manuale istruzioni contiene le informazioni necessarie all'installazione ed all'uso **dell'Interfaccia RS232/Ethernet.**

È vietata la riproduzione e la trasmissione a terzi di tutto o parti del presente manuale senza l'autorizzazione scritta di SCHNEIDER ELECTRIC.

SCHNEIDER ELECTRIC si riserva il diritto di effettuare modifiche senza alcun preavviso allo scopo di migliorare i propri prodotti. In conseguenza di ciò potrebbe verificarsi la non perfetta corrispondenza fra le illustrazioni del manuale e l'apparecchiatura fornita.

Assicurarsi che ogni eventuale emendamento o aggiornamento fornito dal costruttore venga inserito ed integrato nel presente manuale istruzioni.

Conservazione del manuale

Il manuale deve essere conservato per future consultazioni per tutta la durata della vita dell'apparecchiatura e deve essere reso disponibile per ogni intervento o successiva re-installazione dell'apparecchiatura stessa.

Simbologia utilizzata

All'interno dei manuali istruzioni vengono utilizzati una serie di simboli che servono a richiamare l'attenzione su suggerimenti, note, prescrizioni e norme che riguardano il corretto uso e sicurezza dell'applicazione oltre che l'incolumità fisica dell'operatore.

Di seguito è elencato n compendio della principale simbologia.

Note generali:

NOTA O NORMA OPERATIVA GENERALE

Segnali di prescrizione (forma rettangolare):

OBBLIGO DI SEZIONAMENTO DELL'ALIMENTAZIONE ELETTRICA (APRIRE L'INTERRUTTORE GENERALE).

Segnali di avvertimento di pericolo per la persona e/o per l'apparecchiatura (forma triangolare):

PERICOLO GENERALE PER LA PERSONA E/O PER L'APPARECCHIATURA

PERICOLO DI NATURA ELETTRICA PER LA PERSONA E/O PER L'APPARECCHIATURA (FOLGORAZIONE)

Avvertenze

- ✓ Per informazioni tecniche relative all'installazione, l'uso del prodotto o in caso di guasto, rivolgersi a SCHNEIDER ELECTRIC.
- ✓ L'installazione o interventi sull'apparecchio devono essere effettuati da personale qualificato in conformità alle normative di installazione nazionali vigenti, in luogo protetto da polveri e umidità.
- ✓ Inserire un sistema di sezionamento a monte del collegamento di alimentazione.
- ✓ **Per la sicurezza delle persone e il buon funzionamento dell'Interfaccia RS232/Ethernet è INDISPENSABILE un efficace collegamento a terra secondo le norme vigenti.**
- ✓ Prima di effettuare qualsiasi operazione di manutenzione disinserire l'apparecchio dalla rete
- ✓ **Il cassonetto barrato riportato sull'apparecchio specifica che il prodotto deve essere consegnato ai centri di raccolta autorizzati per un corretto smaltimento che ne limiti gli effetti negativi sull'ambiente e sull'uomo. Rivolgersi all'ufficio competente del proprio ente locale per informazioni sui centri di raccolta e sui termini della Legge in vigore**

ATTENZIONE:
LA INOSSERVANZA DELLE ISTRUZIONI DI INSTALLAZIONE ED USO DELL'APPARATO COMPORTA IL DECADIMENTO DELLA GARANZIA.

Sicurezza

- **L'interfaccia RS232/Ethernet deve essere installato** in luogo protetto da polveri, umidità e vapori aggressivi.
- Qualsiasi intervento di installazione e/o manutenzione dell'apparecchiatura deve essere eseguito in **assenza dell'alimentazione elettrica**.
  A questo scopo è necessario prevedere un dispositivo di sezionamento elettrico all'origine dell'alimentazione dell'apparecchiatura.
- Utilizzare esclusivamente l'alimentatore in dotazione fornito unitamente all'apparecchiatura.

- Assicurarsi che il collegamento di terra dell'alimentatore sia sicuro ed efficace.
- Il buon funzionamento dell'interfaccia RS232/Ethernet è assicurato solo se impiegato con apparecchiature di emergenza SCHNEIDER ELECTRIC.

Contenuto dell’imballo

Aprire l’imballo e controllare che la fornitura sia completa:

(1) **Interfaccia RS232/Ethernet**
(2) Alimentatore 230 Vac/12 Vdc
(3) CD contenente il software di configurazione e la documentazione di prodotto
(4) Manuale per l’uso e la manutenzione

Descrizione Generale

L'interfaccia RS232/Ethernet permette di trasferire su supporto fisico di rete Ethernet il dialogo tra **PC** di supervisione ed i sistemi di controllo e gestione di reti di illuminazione di emergenza della serie **DARDO**.

Uso previsto

Le **interfaccie RS232/Ethernet** vengono inserite in sistemi di supervisione costruiti da:

- **PC** in postazione remota con sistema operativo **MS Windows 98** o superiore, software di configurazione **Nport Administrator Suite** e software di monitoraggio e gestione **DARDO PC LITE**.
  N.B.: il software ed il relativo manuale vengono aggiornati frequentemente. Il contenuto del CD può subire variazioni.

  La cosa migliore è leggere i file **Readme.txt** e **Version.TXT** presenti nel CD. Tutti gli aggiornamenti sono riportati in questi file.

- Centraline DARDOPLUS.

Ciascun sistema di supervisione può essere costituito da 256 impianti meno il numero di porte seriali del PC.
Ogni impianto sarà costituito da una **interfaccia RS232/Ethernet**, da un **Convertitore RS232/485**, collegati fino ad un massimo di 32 centraline.

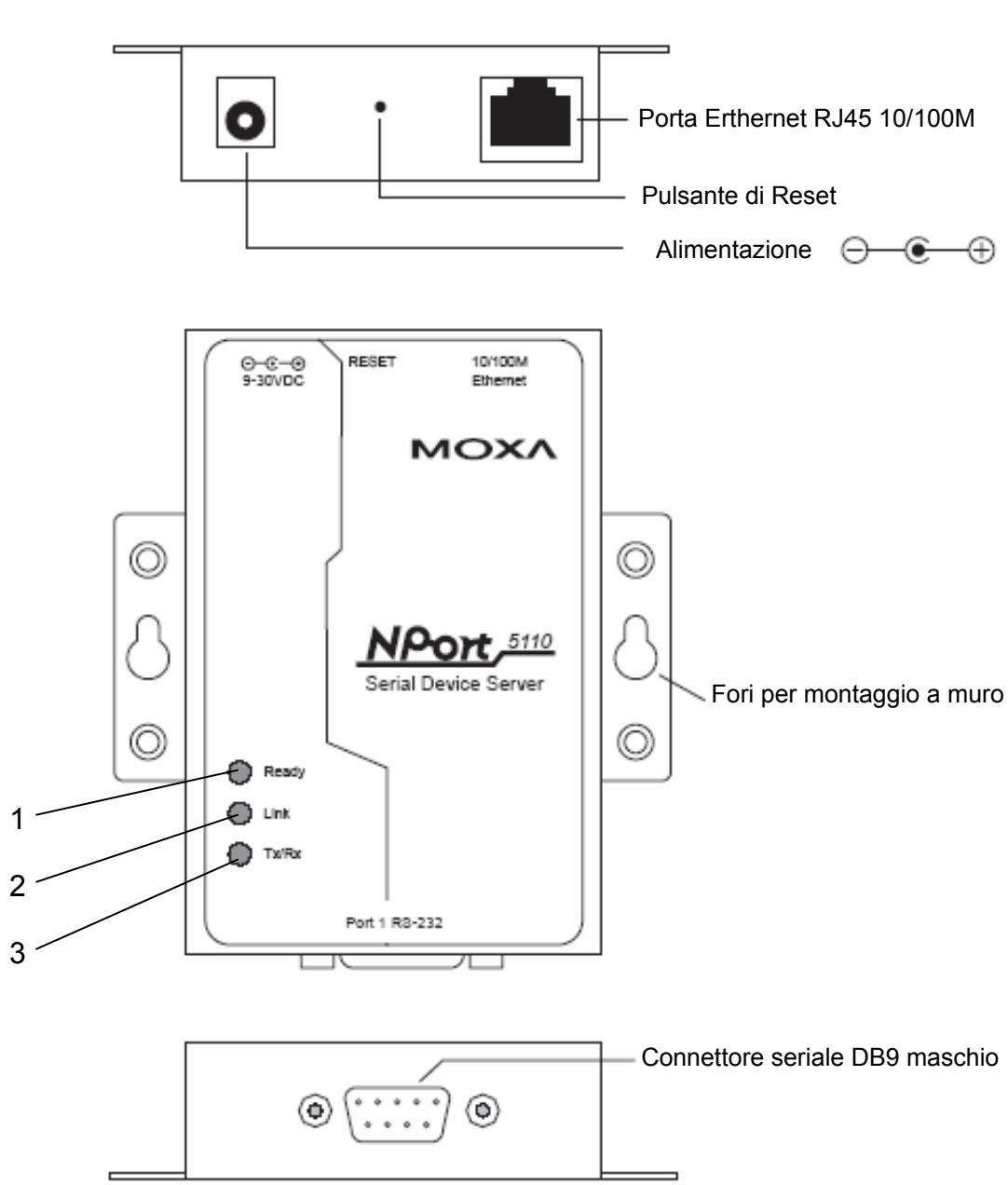
Dati Tecnici

Interfaccia RS232/Ethernet

Caratteristiche generali

- Alimentazione: 9 – 30 Vdc
- Assorbimento: 200 mA (9V); 165 mA (12V)
- Potenza dissipata: 1,8 (9V): 1,98W (12V)
- Porta seriale: RS232 (9poli)
- Porta Ethernet: 10/100 Mbps (connettore RJ-45)
- Cavo collegamento RS232: AWG24*
- Contenitore: Alluminio (1mm)
- Dimensioni (Larg. x Alt. x Prof.): 75,2 x 80 x 22 mm (con supporti di fissaggio)
  52 x 80 x 22 mm (senza supporti di fissaggio)
- Temperatura di esercizio: min. 0 °C max +55 °C
- Temperatura di immagazzinamento: min. -20 °C max +85 °C
- Umidità relativa (non condensata): 5 – 95%
- Peso: 134 g
- Limitatore sovratensioni (port seriale): 15 kV ESV (scariche elettrostatiche)
- Isolamento magnetico (porta ethernet): 1,5 kV
- Protezione linea di alimentazione: 4 kV Burst (EFT), EN 61000 – 4 – 4
  2 kV Surge, EN 61000 – 4 – 5
- Certificazioni: CE classe A, FCC Classe A, CUL, TÜV

(*) Cavo schermato 3 fili, sez. 0,51 mm^2 con filo rigido oppure 0,16mm^2 con filo flessibile, tipo AWG24. Consigliato per collegamenti fino a 15 m.



Pulsante di Reset

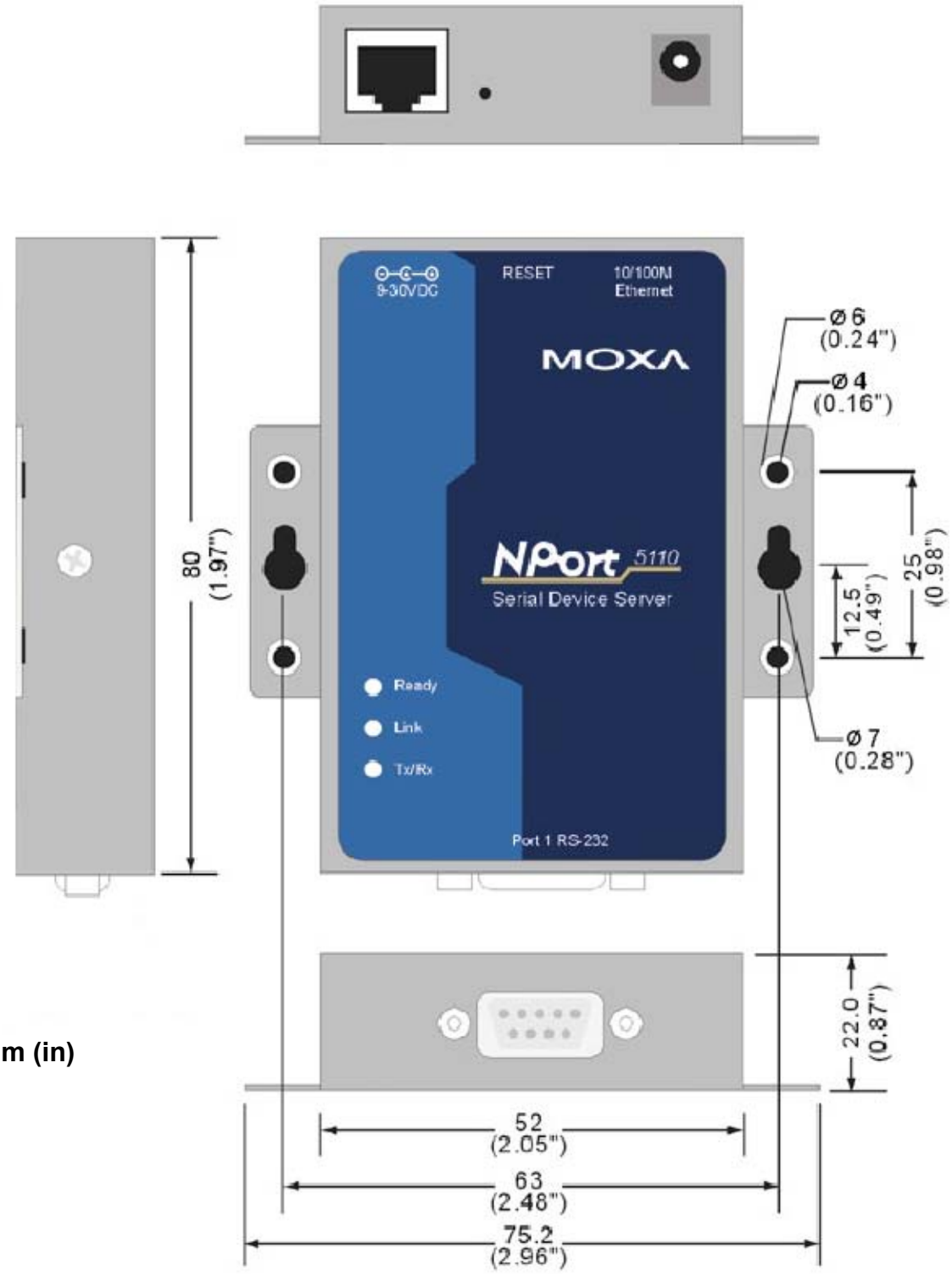
Tenendo premuto il pulsante di Reset per 5 secondi l'interfaccia si configurerà con le impostazioni iniziali di fabbrica:

- Utilizzare un oggetto appuntito per premere il pulsante.
- Alla pressione del pulsante il LED Ready (1) inizierà a lampeggiare.
- La configurazione iniziale sarà caricata dopo che il LED Ready (1) avrà terminato di lampeggiare (dopo circa 5 secondi).
- A questo punto è possibile rilasciare il pulsante.

Funzionamento LED

Nome LED	Colore LED	Funzione LED
Ready (1)	Rosso	Acceso fermo: L'interfaccia è alimentata e si sta inizializzando. Lampeggiante: Indica un conflitto dell'indirizzo IP o il server di rete non risponde correttamente.
	Verde	Acceso fermo: L'interfaccia è alimentata e sta funzionando normalmente. Lampeggiante: L'interfaccia è stata localizzata dal software NPort Administrator.
	Spento	L'interfaccia non è alimentata o esiste una condizione di errore di alimentazione.
Link (2)	Arancione	Connessione Ethernet 10 Mbs.
	Verde	Connessione Ethernet 100 Mbs.
	Spento	Cavo Ethernet scollegato o è in cortocircuito.
Tx / Rx (3)	Arancione	La porta seriale sta ricevendo dati.
	Verde	La porta seriale sta trasmettendo dati.
	Spento	Nessun dato è trasmetto o ricevuto attraverso la porta seriale.

Caratteristiche meccaniche



Unità = mm (in)

Alimentatore per Interfaccia RS232/Ethernet

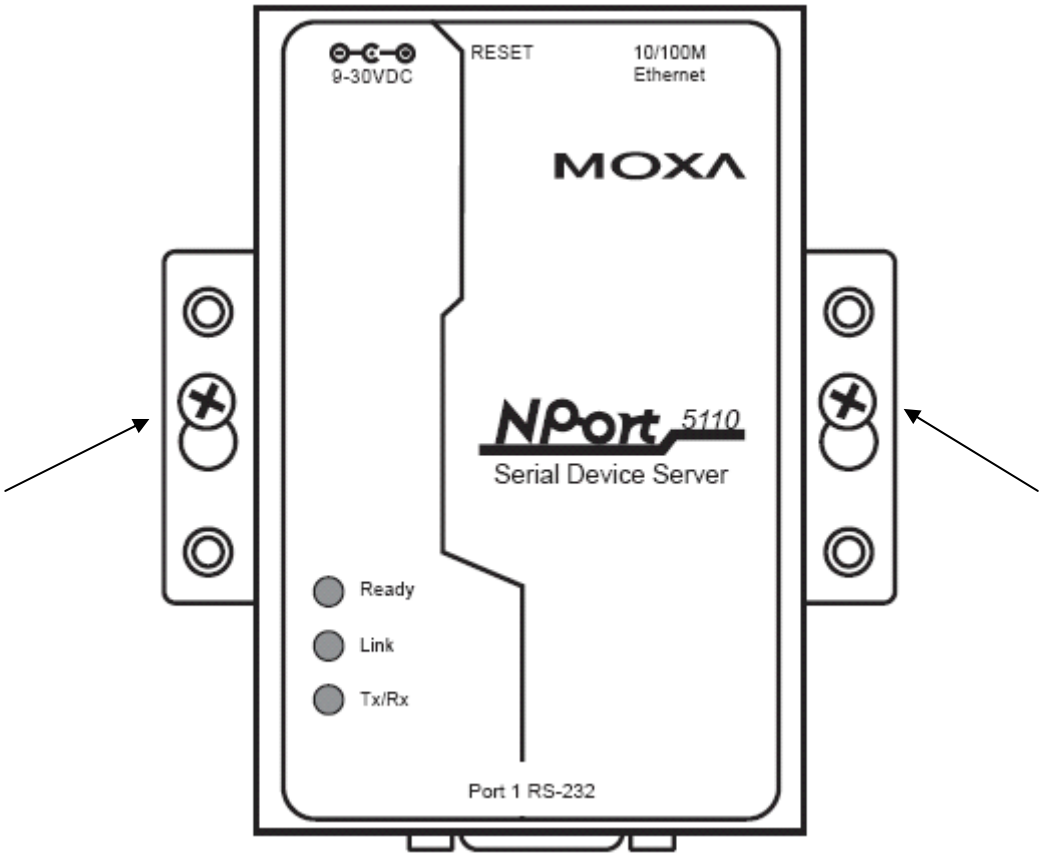
Caratteristiche generali

- Alimentazione: 230 Vac 50 Hz, 49 mA
- Uscita: 12 Vdc 400 mA
- Potenza dissipata: 6,5 W
- Dimensioni (Larg. x Alt. x Prof.): 51 x 63 x 41 mm
- Temperatura di esercizio: min. 0 °C max +55 °C
- Temperatura di immagazzinamento: min. –20 °C max +85 °C
- Umidità relativa (non condensata): 5 – 95%
- Peso: 317,5 g
- Lunghezza cavo: 1818 mm
- Certificazioni: CE, TÜV

Installazione

Montaggio dell’Interfaccia

È possibile effettuare il montaggio a parete dell’interfaccia sfruttando i fori presenti sulle alette laterali.



Requisiti di sistema

Per installare l'Interfaccia RS232/Ethernet è necessario verificare che il sistema in uso soddisfi i requisiti minimi richiesti:

Sistema operativo:	Windows 98, 2000, NT 4.0, XP (+sp2)
Processore:	Pentium 200MHz o superiori
Memoria:	64 MB Ram
Hard disk:	2 GB
Scheda Grafica:	risoluzione 1024 x 768
Lettore CD	
Mouse	
Tastiera Windows 98 compatibile	
1 porta seriale	
Scheda di rete Ethernet 10/100 Mbps	

Informazioni per l'installazione

Per installare l'**Interfaccia RS232/Ethernet** è necessario eseguire nell'ordine i seguenti punti:

1) Collegare l'interfaccia ad una rete Ethernet (v. paragrafo Collegamenti rete Ethernet)

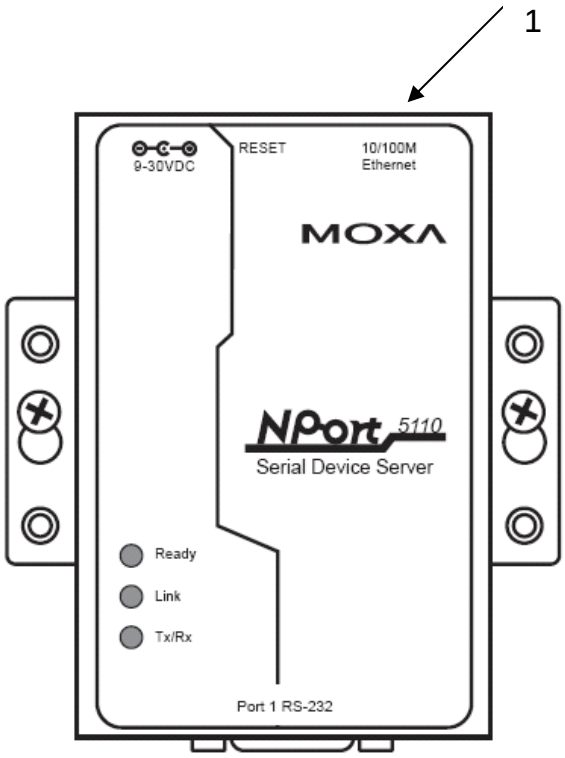
2) Collegare l'interfaccia alla porta **RS232** del **Convertitore DARDO RS232/485**
(v. paragrafo Collegamenti cavo seriale).
Vedere l'esempio di collegamento con i sistemi di supervisione SCHNEIDER ELECTRIC
(v. sez. Appendici)

3) Alimentare l'interfaccia utilizzando l'alimentatore in dotazione (v. paragrafo Collegamenti alimentatore)

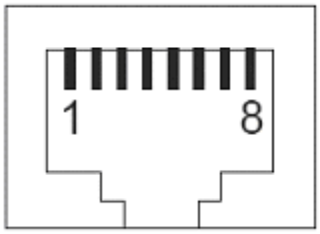
4) Configurare l'interfaccia (v. Sezione 5) dopo aver installato il software di configurazione, presente nel CD in dotazione.

Collegamenti rete Ethernet

Collegare la porta 10/100 M Ethernet (1) dell'interfaccia ad un dispositivo HUB/SWITCH di rete tramite un cavo **RJ45**.



Porta 10/100 M Ethernet dell'interfaccia

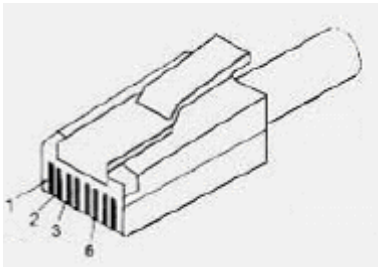


Numero PIN	Segnali Ethernet
1	Tx+
2	Tx-
3	Rx+
6	Rx-

Cavo RJ45

Utilizzare un cavo RJ45 dritto:

Pin N.1	Trasmissione dati +
Pin N.2	Trasmissione dati -
Pin N.3	Ricezione dati +
Pin N.4	Riservato
Pin N.5	Riservato
Pin N.6	Ricezione dati -
Pin N.7	Riservato
Pin N.8	Riservato



Collegamenti:
C = lato **Interfaccia RS232/Ethernet**
H = lato HUB/SWITCH rete Ethernet

ATTENZIONE:

USARE UN CAVO UTP (UNSHIELDED TWISTED PAIR) CON COPIE AVVOLTE NON SCHERMATO, DI CATEGORIA 5, IDONEO ALLA RETE ETHERNET UTILIZZATA.

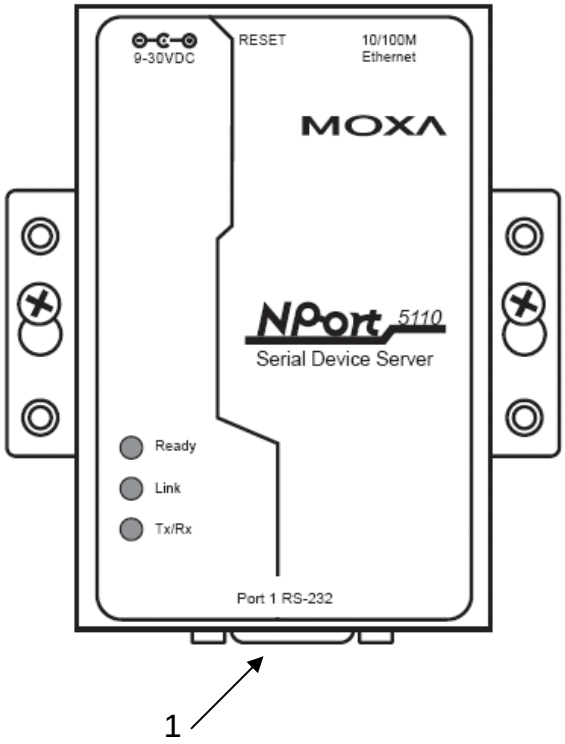
VERIFICARE CHE L'HUB/SWITCH UTILIZZATO ABBIA LE PORTE 10/100 MBPS CON AUTOSENSING.

VERIFICARE LA PRESENZA DI EVENTUALI FILTRAGGI SULLE PORTE DI ACCESSO NELLA CONFIGURAZIONE DELL'HUB/SWITCH (AD ESEMPIO LA CONFIGURAZIONE "PORT SECURITY").

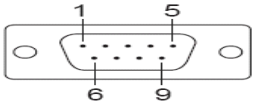
VERIFICARE SE ESISTONO PRECLUSIONI AL PROTOCOLLO TCP/IP SUGLI APPARATI DELLA RETE LAN (AD ESEMPIO CONFIGURAZIONI DI TIPO "ACCESS CONTROL LISTS")

Collegamenti cavo seriale

Collegare la porta seriale RS232 (1) dell'**Interfaccia RS232/Ethernet** alla porta RS232 di un **Convertitore DARDO RS232/485**, connesso a sua volta ad un sistema di supervisione SCHNEIDER ELECTRIC (v. Sez. APPENDICI)



Porta RS232 dell'interfaccia



Numero PIN	Segnali RS232 utilizzati
1	---
2	RxD
3	TxD
4	---
5	GND
6	---
7	---
8	---
9	---

Cavo seriale

Il cavo seriale da utilizzare deve essere un pin to pin schermato a 3 fili (tipo AWG24: sez. 0,51 mm^2 con filo rigido oppure 0,16 mm^2 con filo flessibile). I connettori alle due estremità del cavo sono tipo DB9 femmina:

Connessione dei PIN relativi ai connettori DB9 del cavo seriale

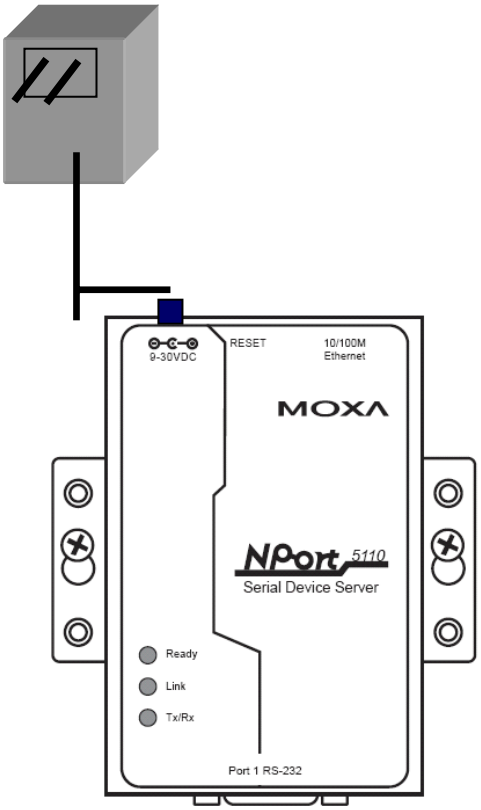
Lato Interfaccia RS232/Ethernet	2	———	2	**Lato Convertitore DARDO RS232/RS485**
	3	———	3	
	5	———	5	

ATTENZIONE:

LA LUNGHEZZA DEL CAVO SERIALE NON DEVE SUPERARE I 15 METRI.

Collegamenti alimentatore

Collegare l'alimentatore in dotazione alla **Interfaccia RS232/Ethernet**:



Collegare l'interfaccia alla rete di alimentazione 230 Vac 50 Hz

Configurazione Interfaccia RS232/Ethernet

Per poter essere utilizzata l'**Interfaccia RS232/Ethernet** deve prima essere configurata. Per fare ciò eseguire nell'ordine le operazioni descritte di seguito.

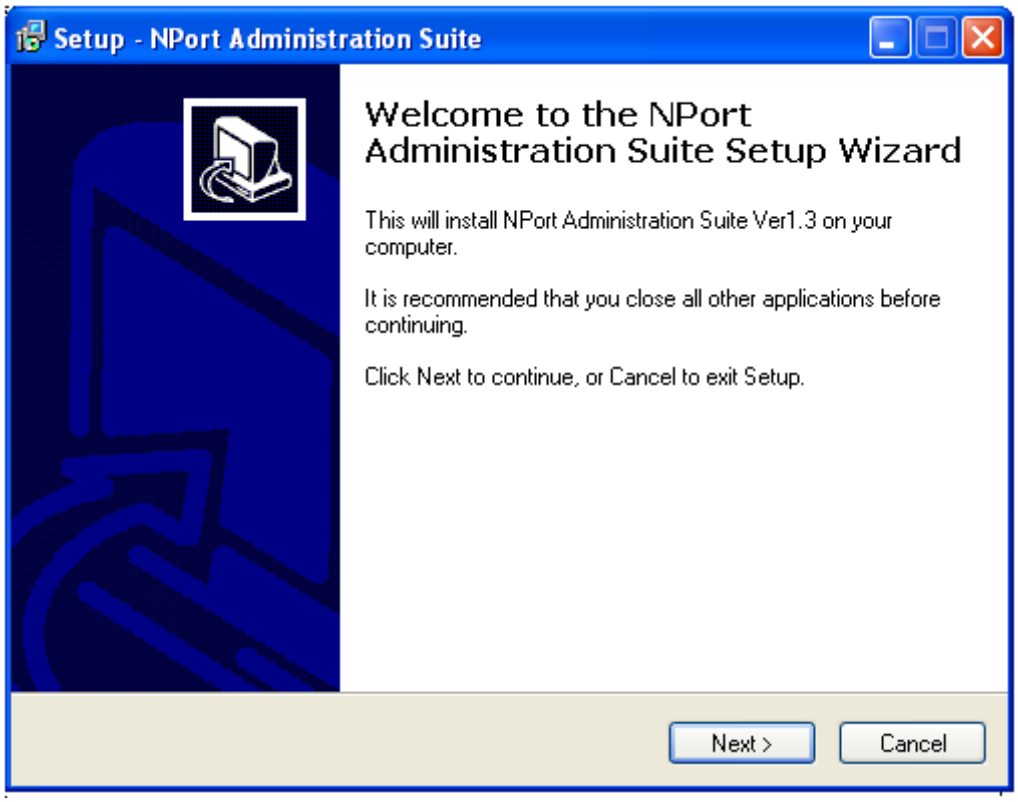
Installazione programma di configurazione

Installare il programma di configurazione sul **PC** di supervisione:

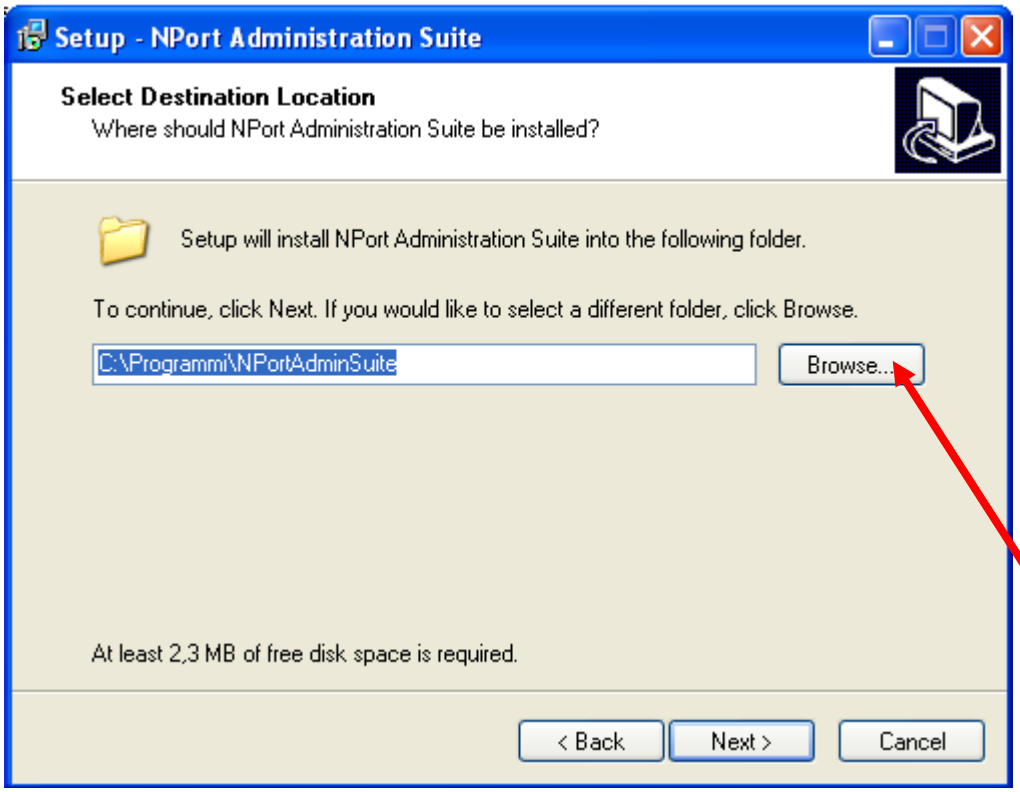
1 Inserire il CD in dotazione nell'unità CD-ROM del PC, con il programma "Gestione risorse" entrare nella cartella del CD: **\NPort 5110\Software\Windows**. Lanciare il file **setup.exe**

ATTENZIONE:

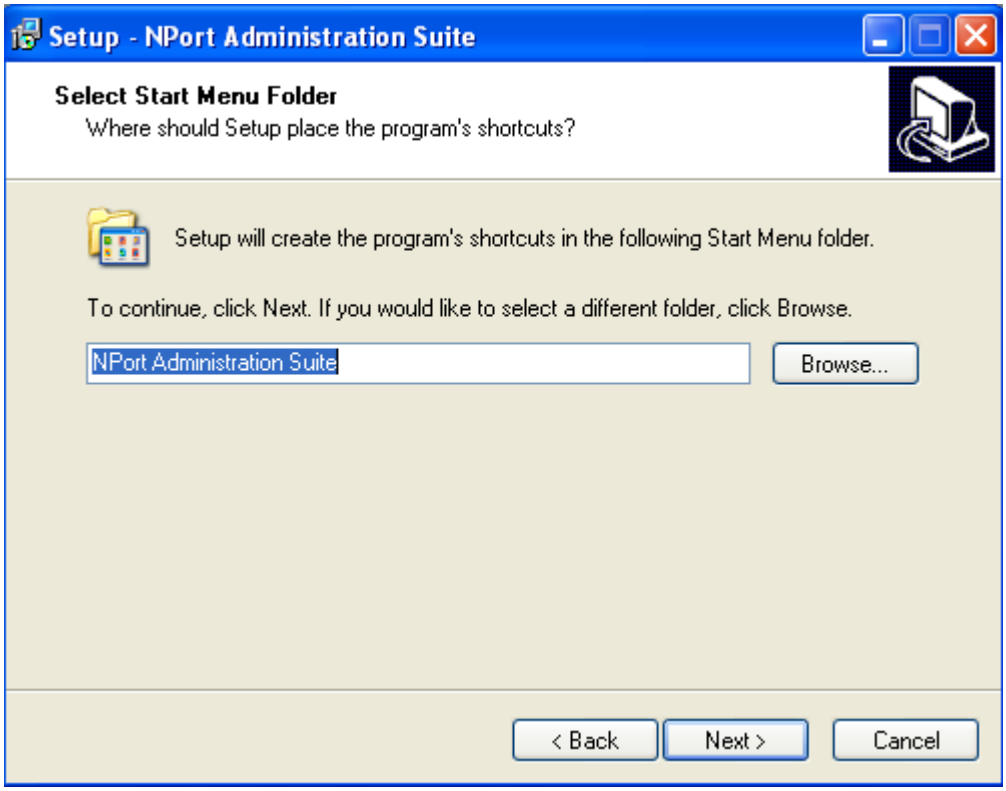
IL SOFTWARE ED IL RELATIVO MANUALE VENGONO AGGIORNATI FREQUENTEMENTE, IL CONTENUTO DEL CD CHE LI ACCOMPAGNA PUO' SUBIRE VARIAZIONI.
LE VIDEATE POTREBBERO PRESENTARSI IN MANIERA DIVERSA DA COME SONO RIPORTATE DI SEGUITO MA LA PROCEDURA RIMANE LA STESSA.
È CONSIGLIATO LEGGERE I FILE **README.TXT** E **VERSION.TXT** PRESENTI NEL CD, TUTTI GLI AGGIORNAMENTI SONO RIPORTATI IN QUESTI FILE.



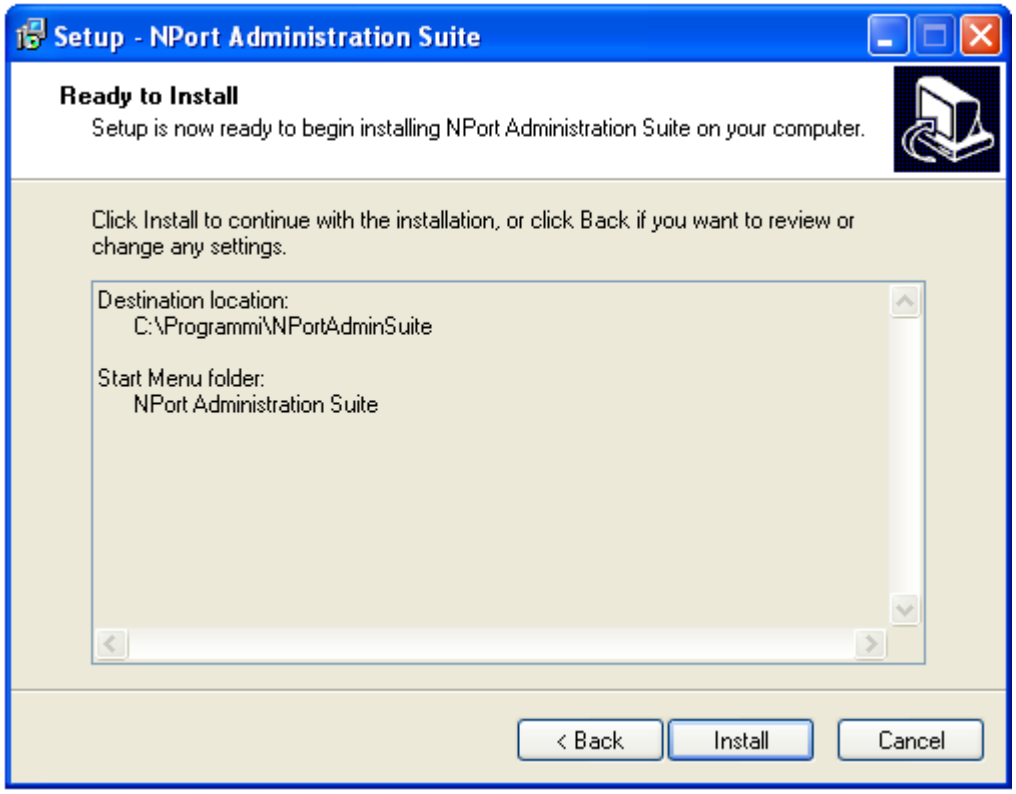
2 Fare clic su **Next**



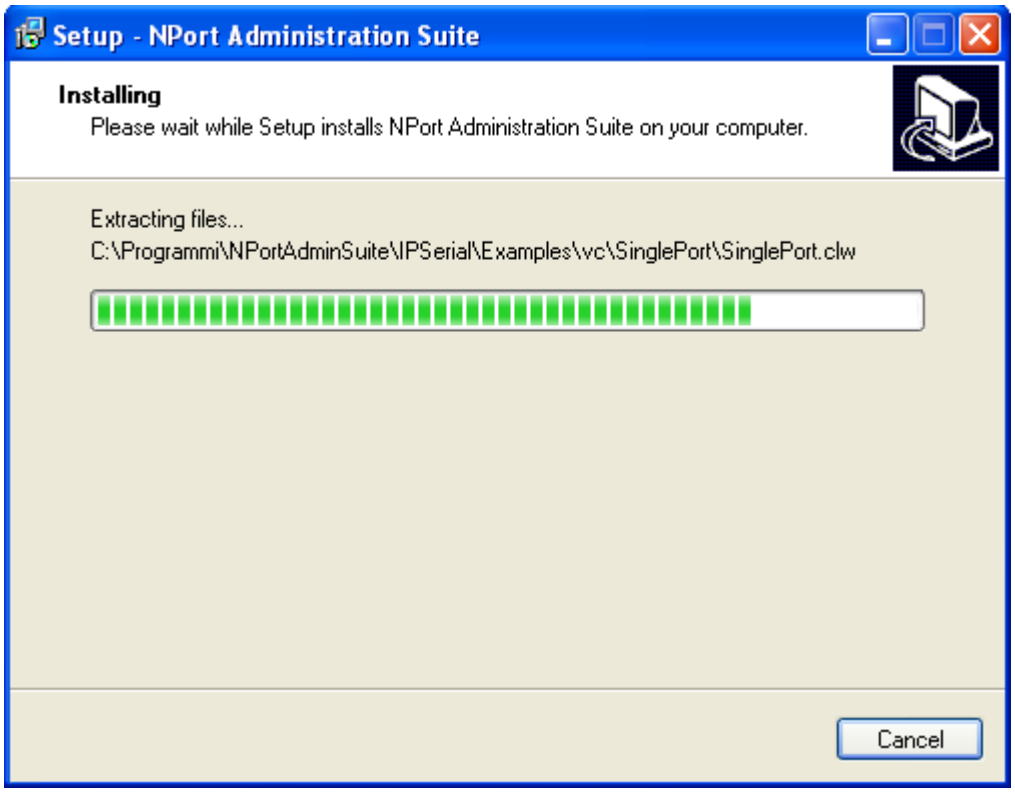
3 Fare clic su **Next.** Se si desidera modificare la directory di destinazione premere il pulsante (1), nella finestra che si sovrappone selezionare la cartella desiderata.



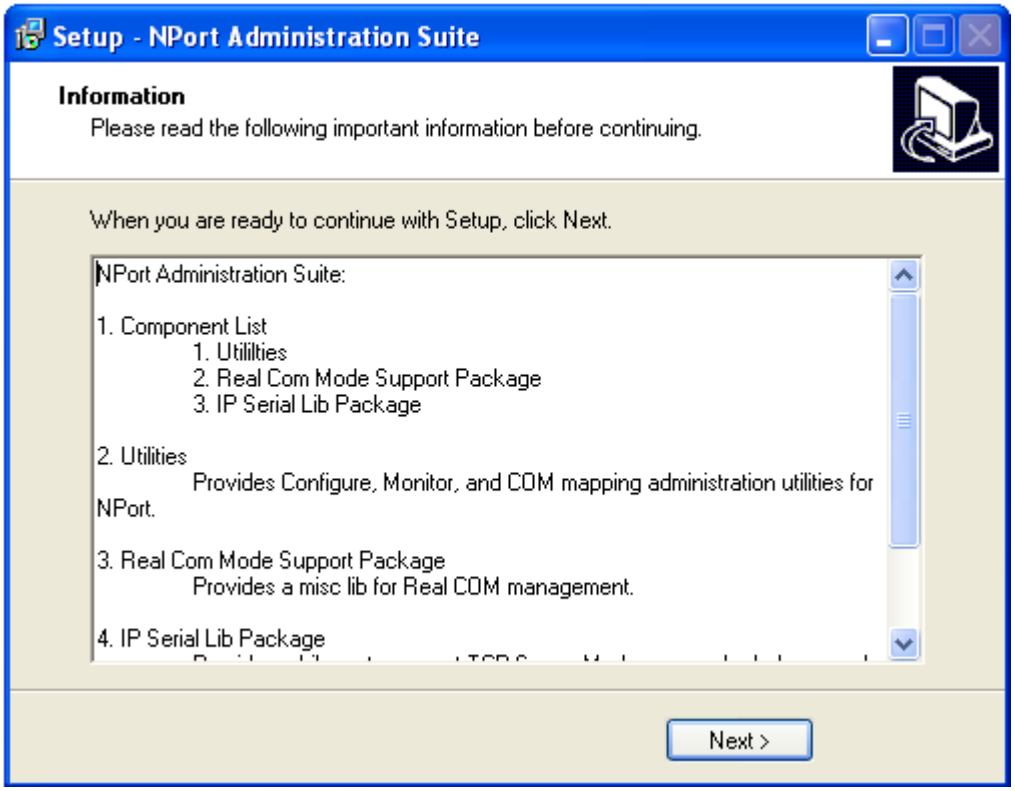
4 Fare clic su **Next**



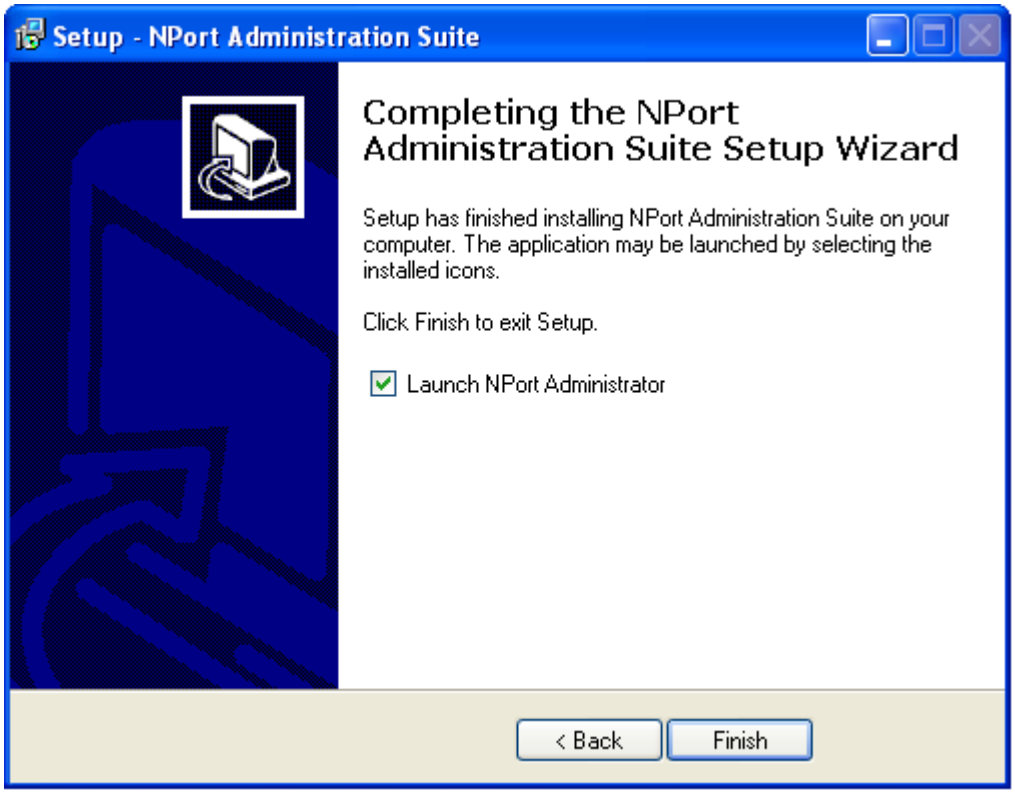
5 Fare clic su **Install**



6 La finestra indica l'avanzamento dell'installazione



7 Fare clic su **Next**

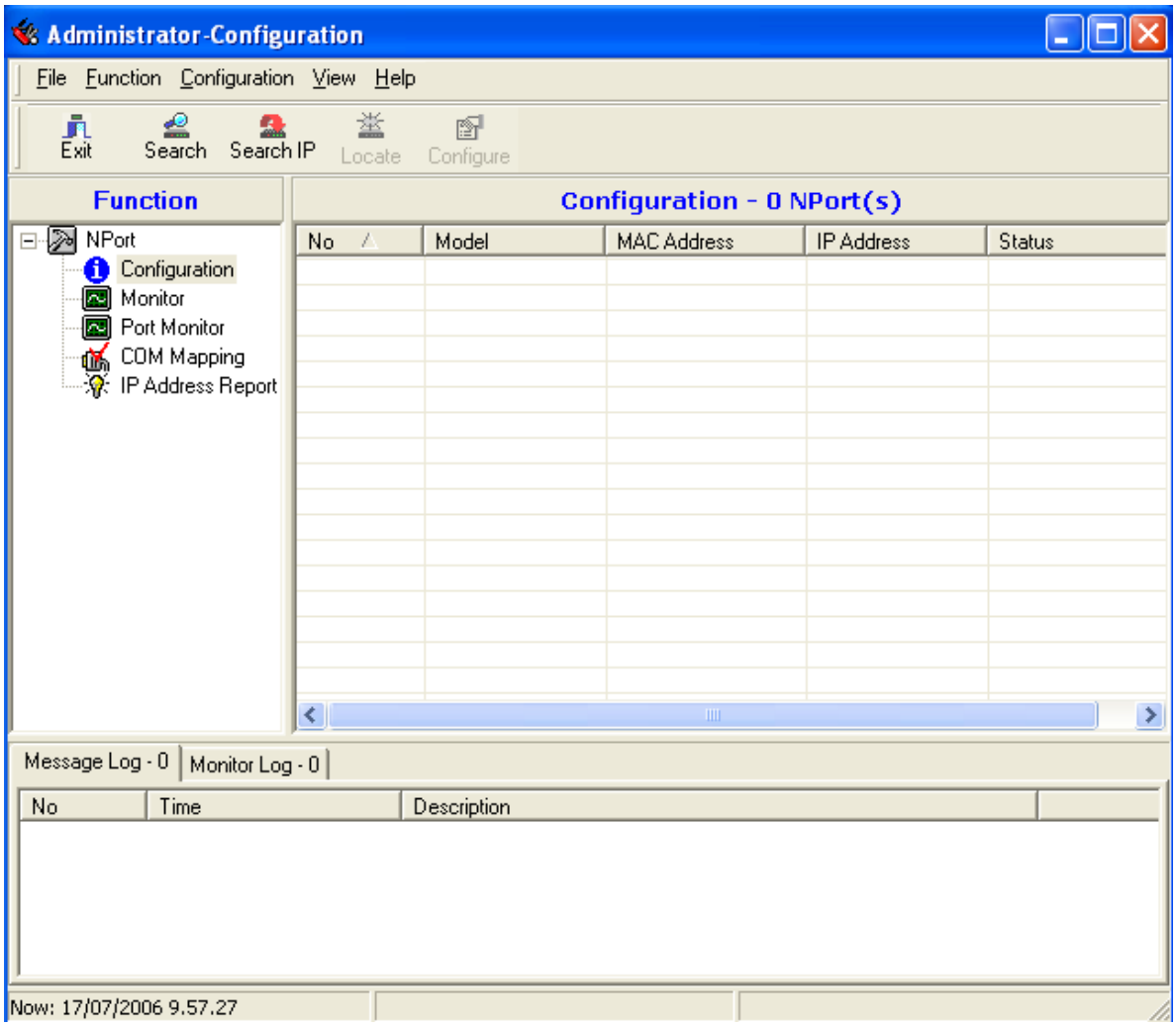


8 Fare clic su **Finish** per terminare l'installazione e far partire il programma di configurazione

Configurazione

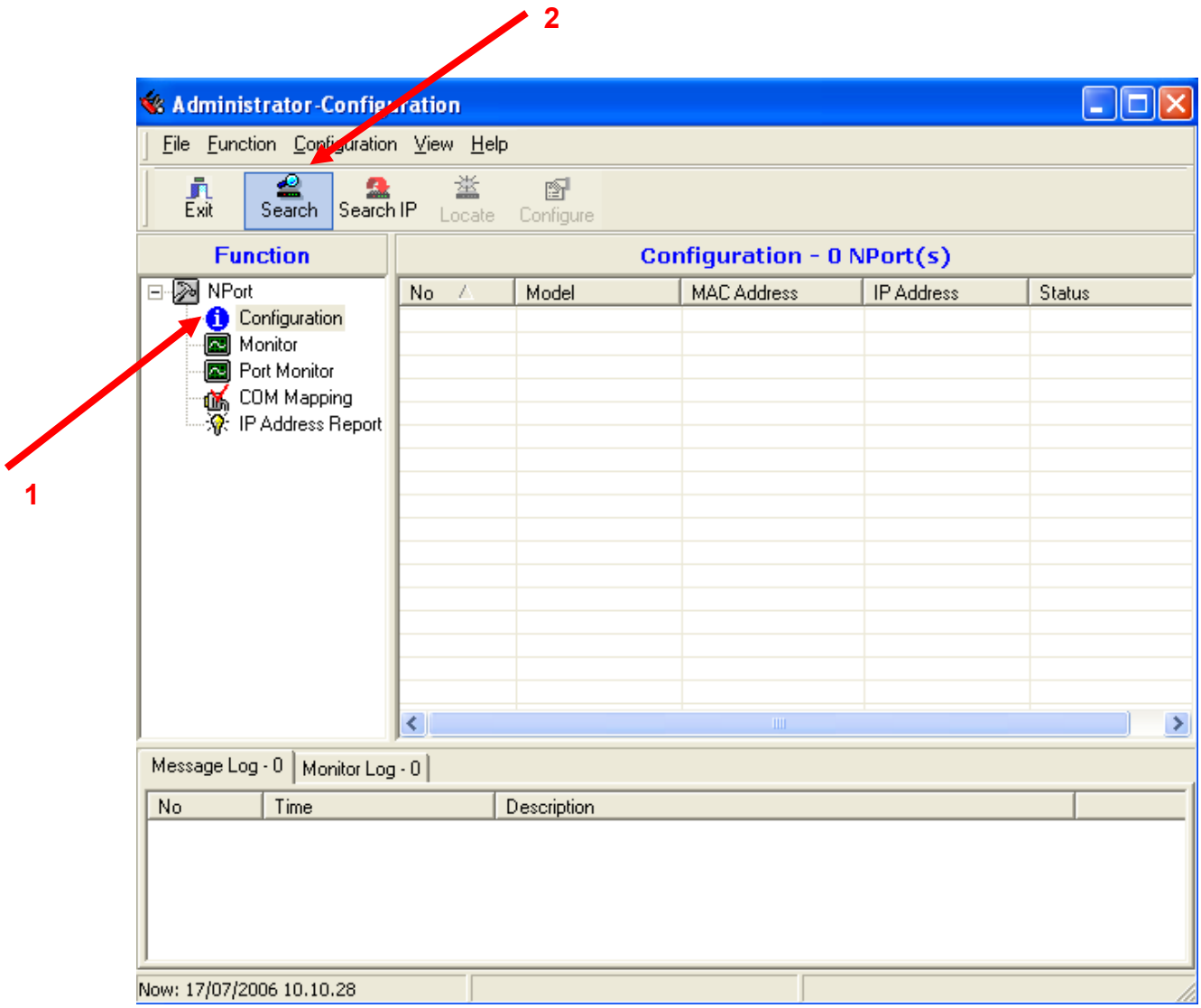
Il programma di configurazione si avvia automaticamente dopo l'installazione (seguendo i passi del paragrafo precedente). Per far partire il programma in un altro momento occorre cliccare su: **Start => Programmi => NPort Administration Suite => NPort Administrator**.

Dopo l'avvio del programma la schermata iniziale è la seguente:

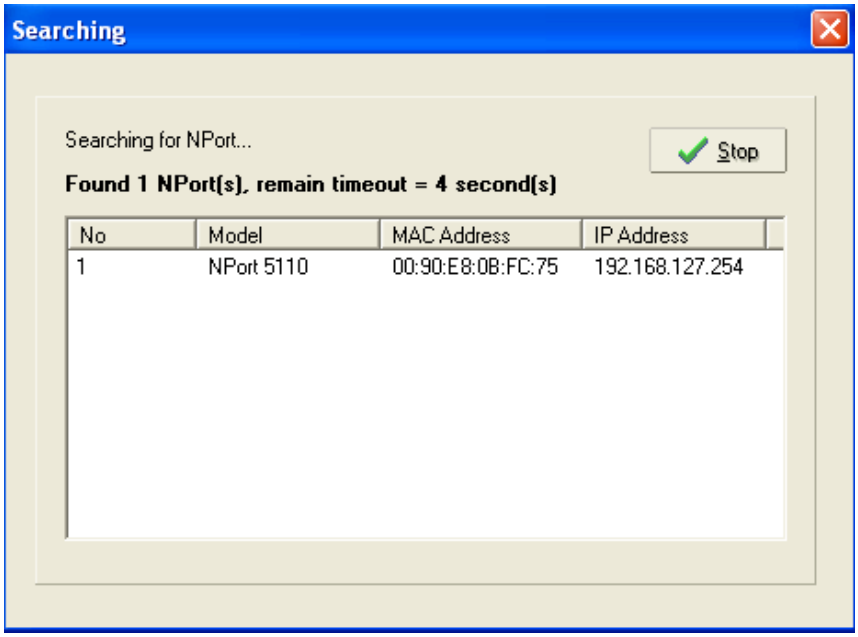


Per la configurazione occorre aver installato l'interfaccia come indicato nella sezione Installazione. Seguire la seguente procedura all'interno del programma:

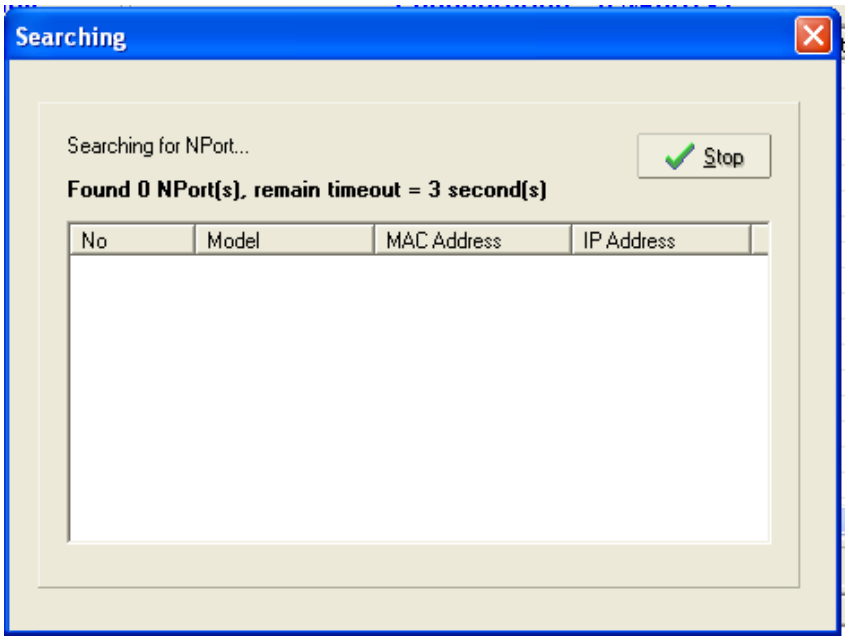
1 Selezionare Configuration (1) e cliccare su Search (2):



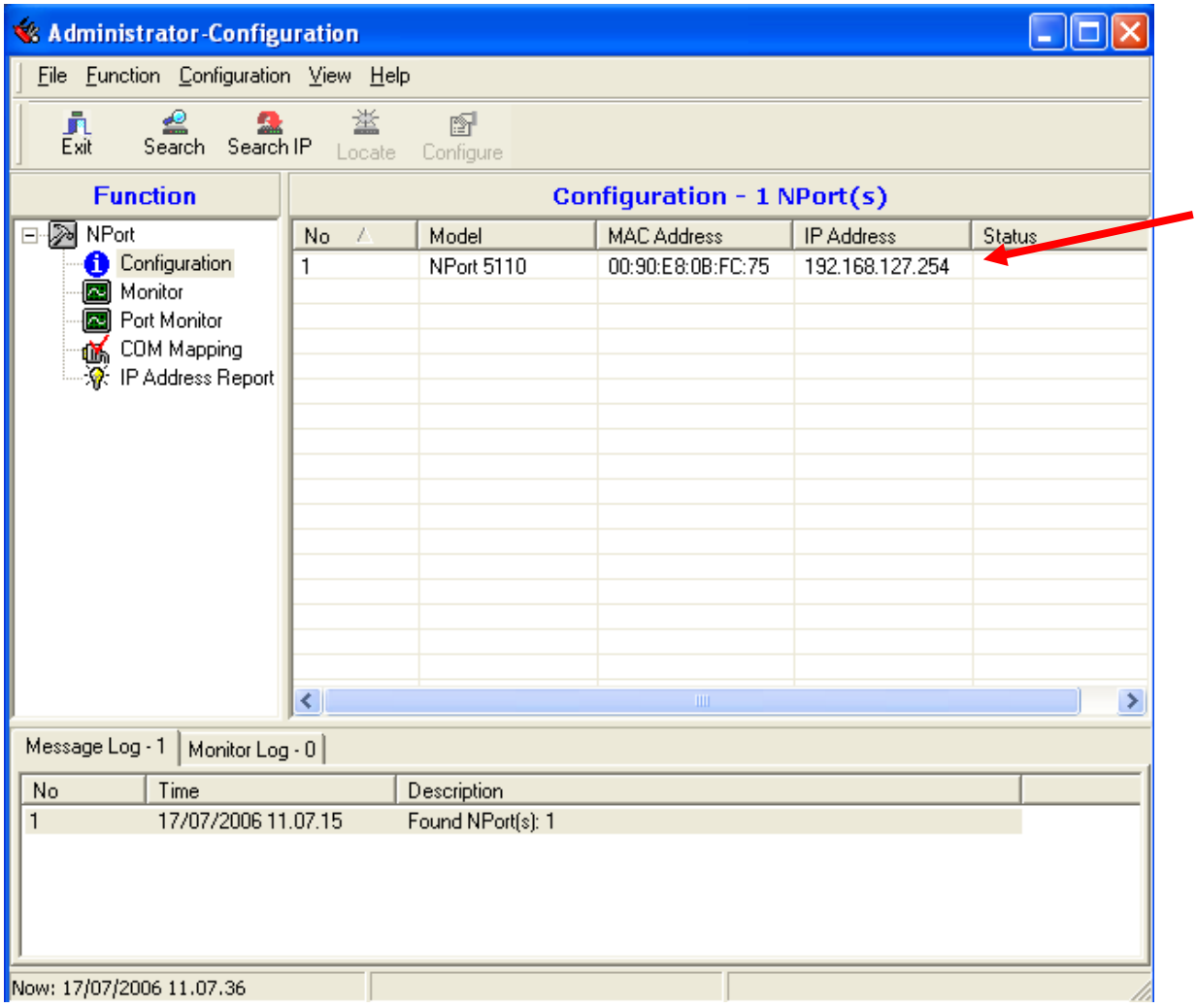
Per alcuni secondi compare la seguente finestra che indica la ricerca ed individuazione dell'interfaccia collegata alla rete Ethernet:



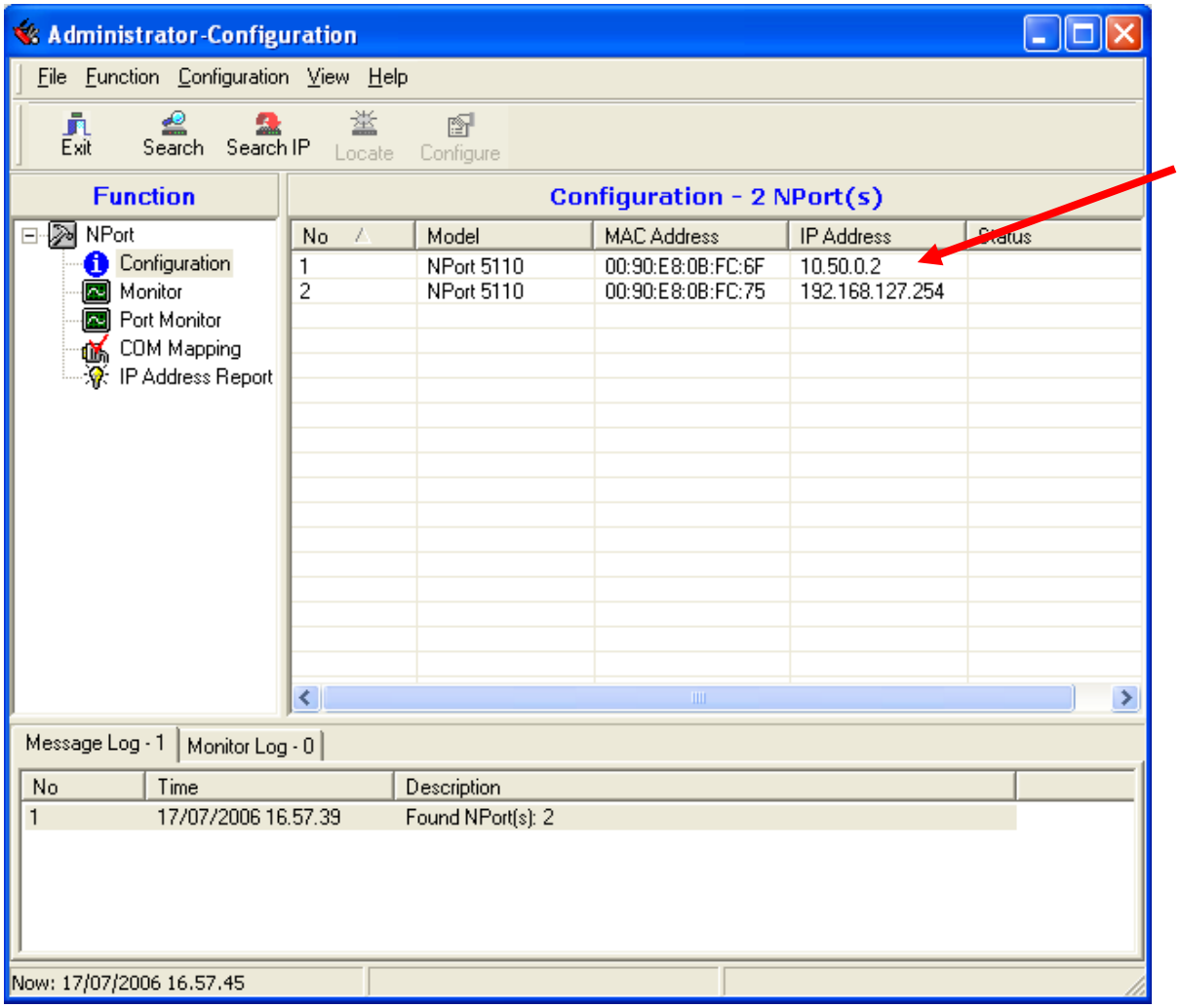
Se l'interfaccia non è individuata perché non è alimentata o collegata alla rete Ethernet, la finestra rimane vuota:



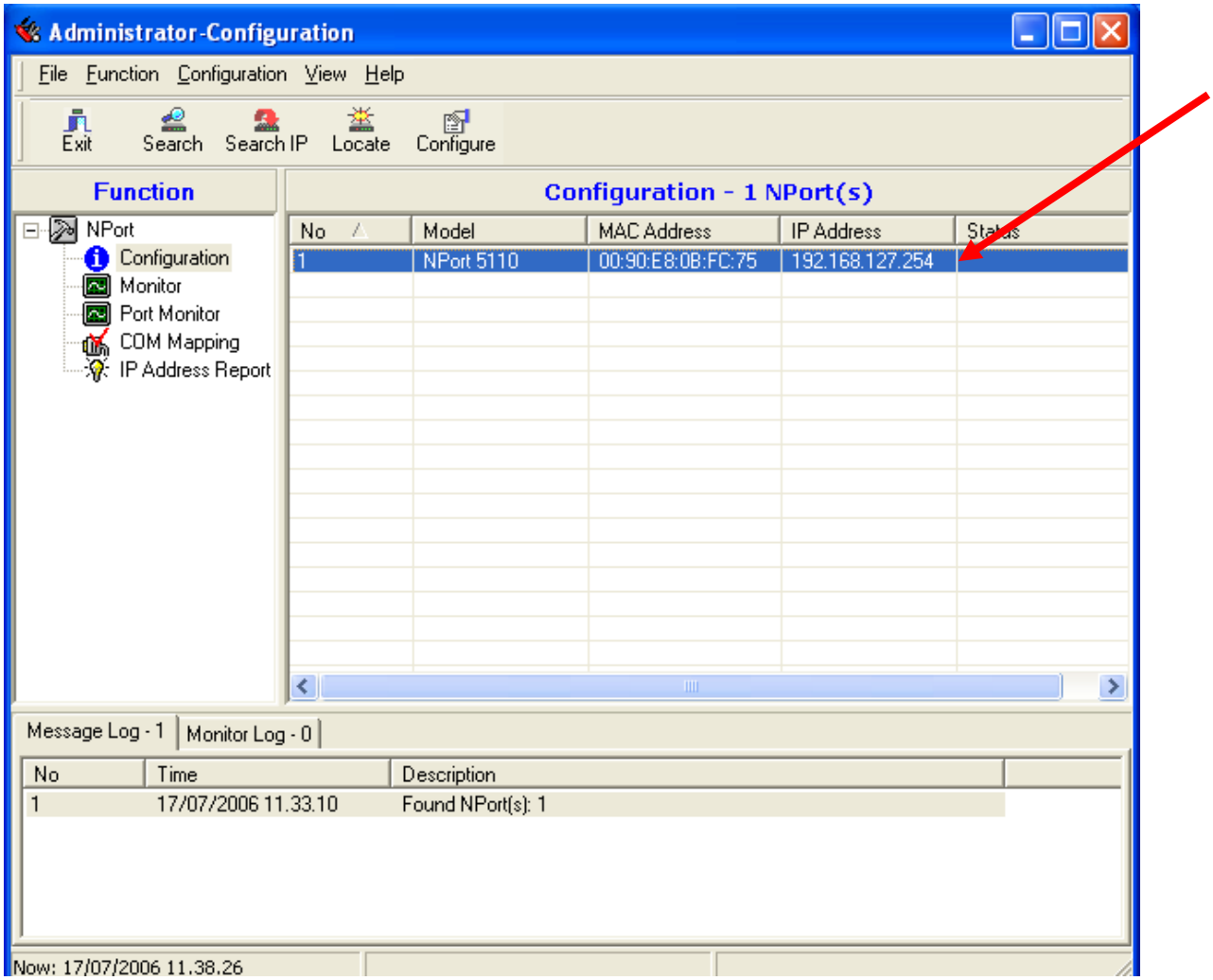
2 L'interfaccia collegata alla rete Ethernet è indicata nella riga dove sono riassunte le seguenti informazioni: Numero di interfaccia collegata, Modello, MAC Address, IP Address.
Verificare che i dati Modello, MAC Address, IP Address siano quelli indicati nell'etichetta dati tecnici presente nell'**Interfaccia RS232/Ethernet**.



Eventuali altre interfacce già collegate alla rete LAN sono visualizzate su altre righe:



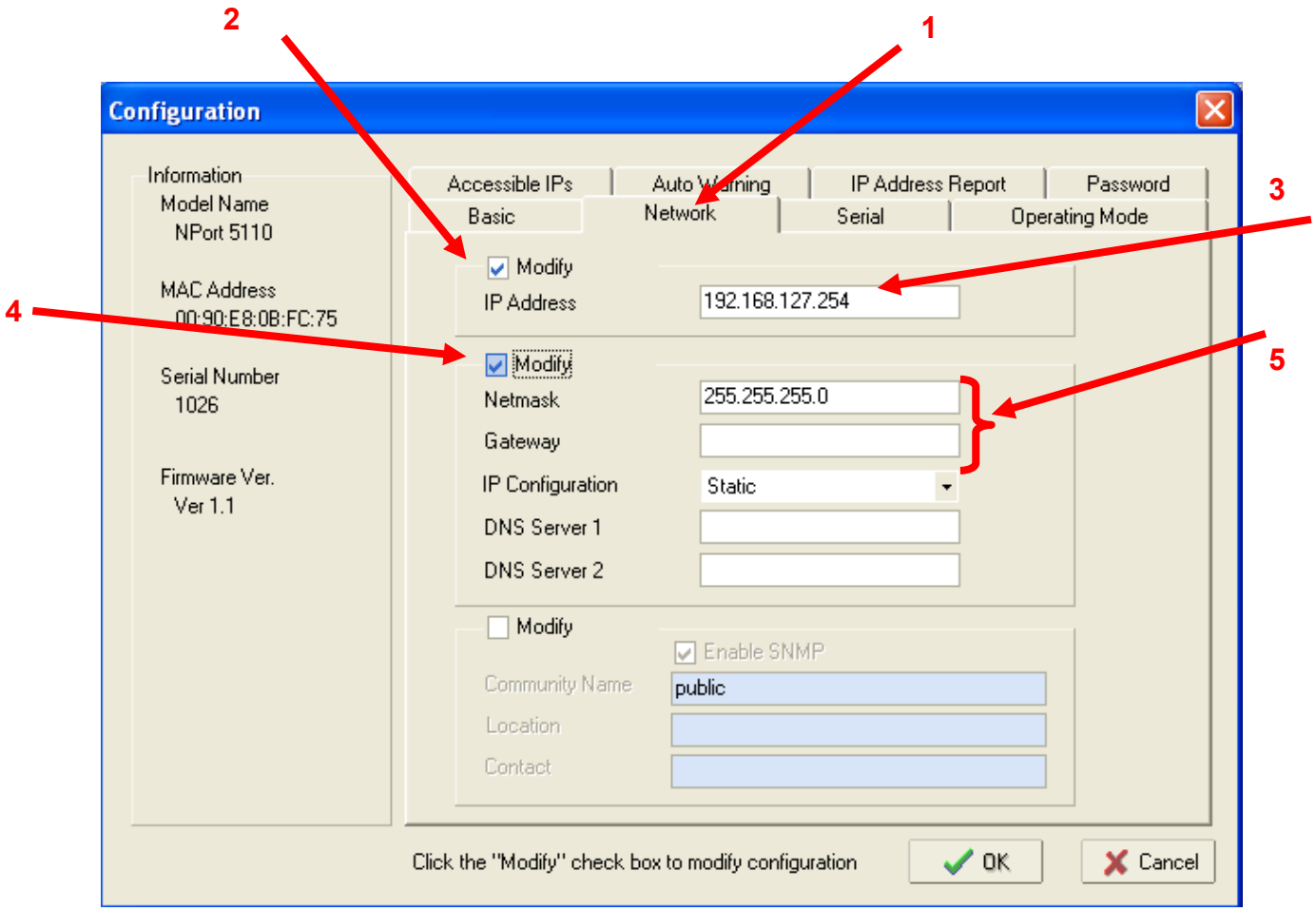
3 L’interfaccia è impostata inizialmente con dei parametri di rete. Per modificare questi dati in funzione della propria rete occorre fare un doppio clic sulla riga dell’interfaccia collegata:



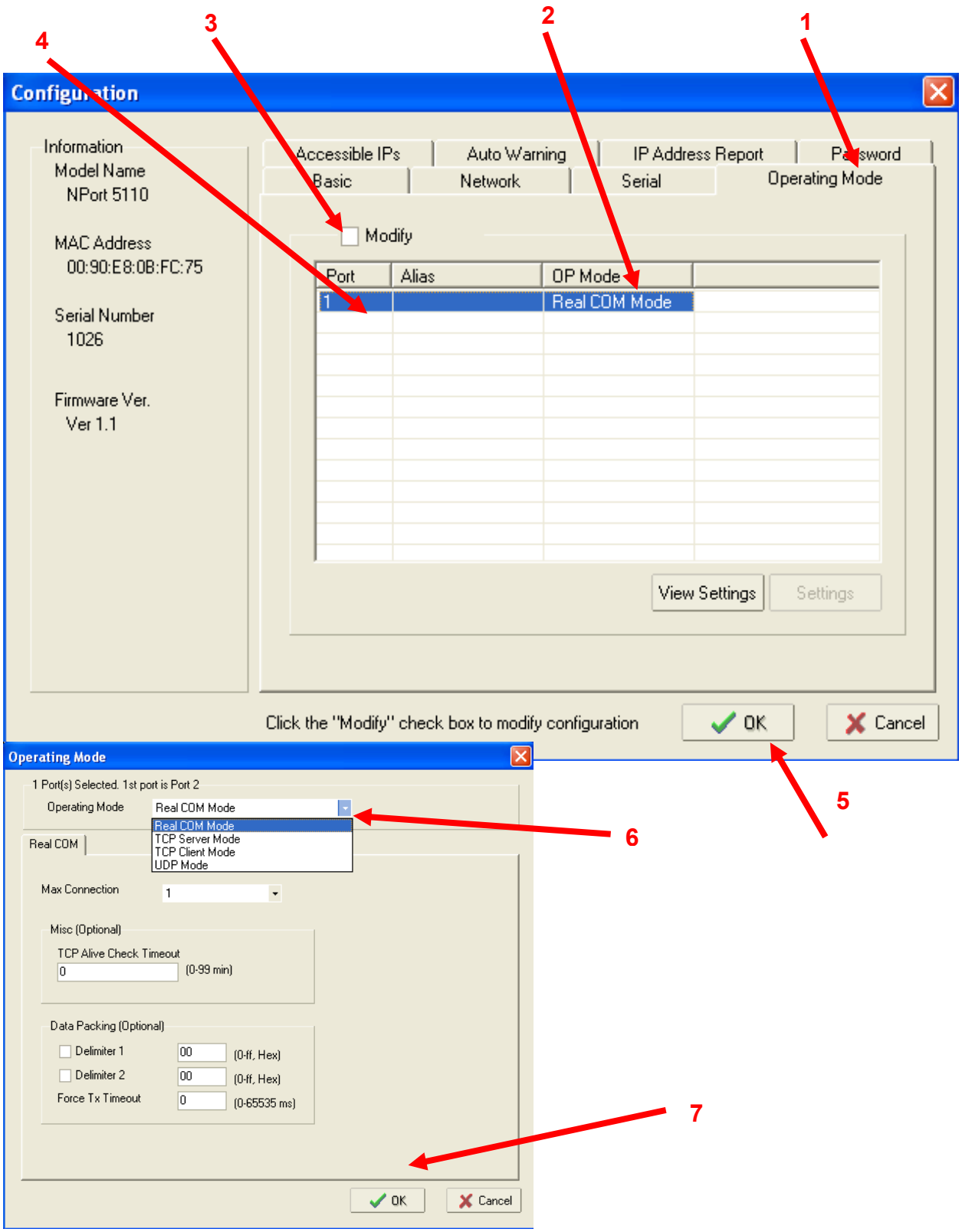
4 Selezionare l'opzione Network (1). Cliccare su Modify (2) e impostare un indirizzo IP libero della propria rete LAN (3). Cliccare su Modify (4) e inserire gli altri parametri(5).

N.B. Rivolgersi al proprio amministratore di sistema per ottenere i parametri relativi alla rete LAN in cui verrà installata l'interfaccia:

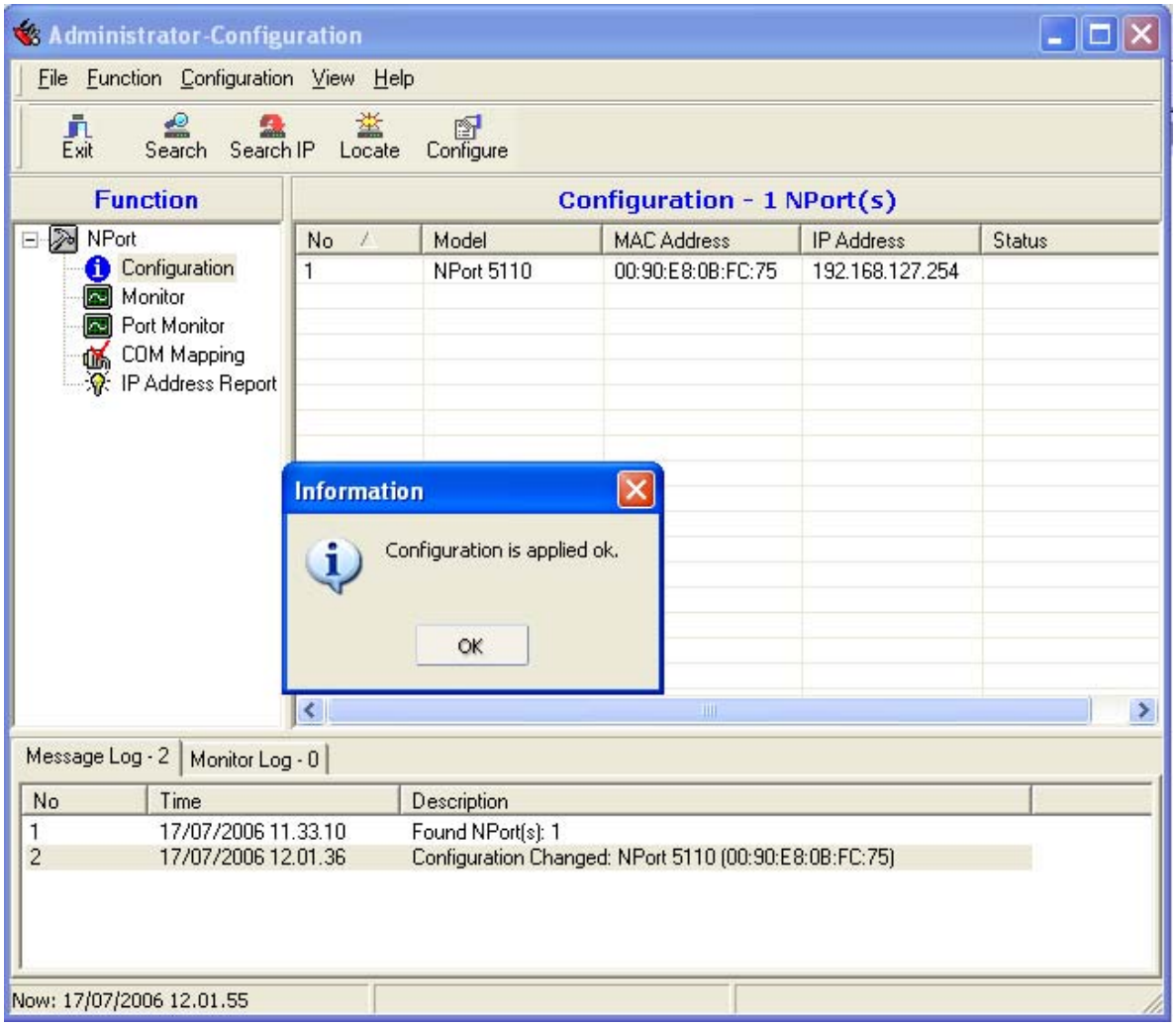
- INDIRIZZO IP
- MASCHERA DI SOTTORETE (O NETMASK)
- INDIRIZZO GATEWAY



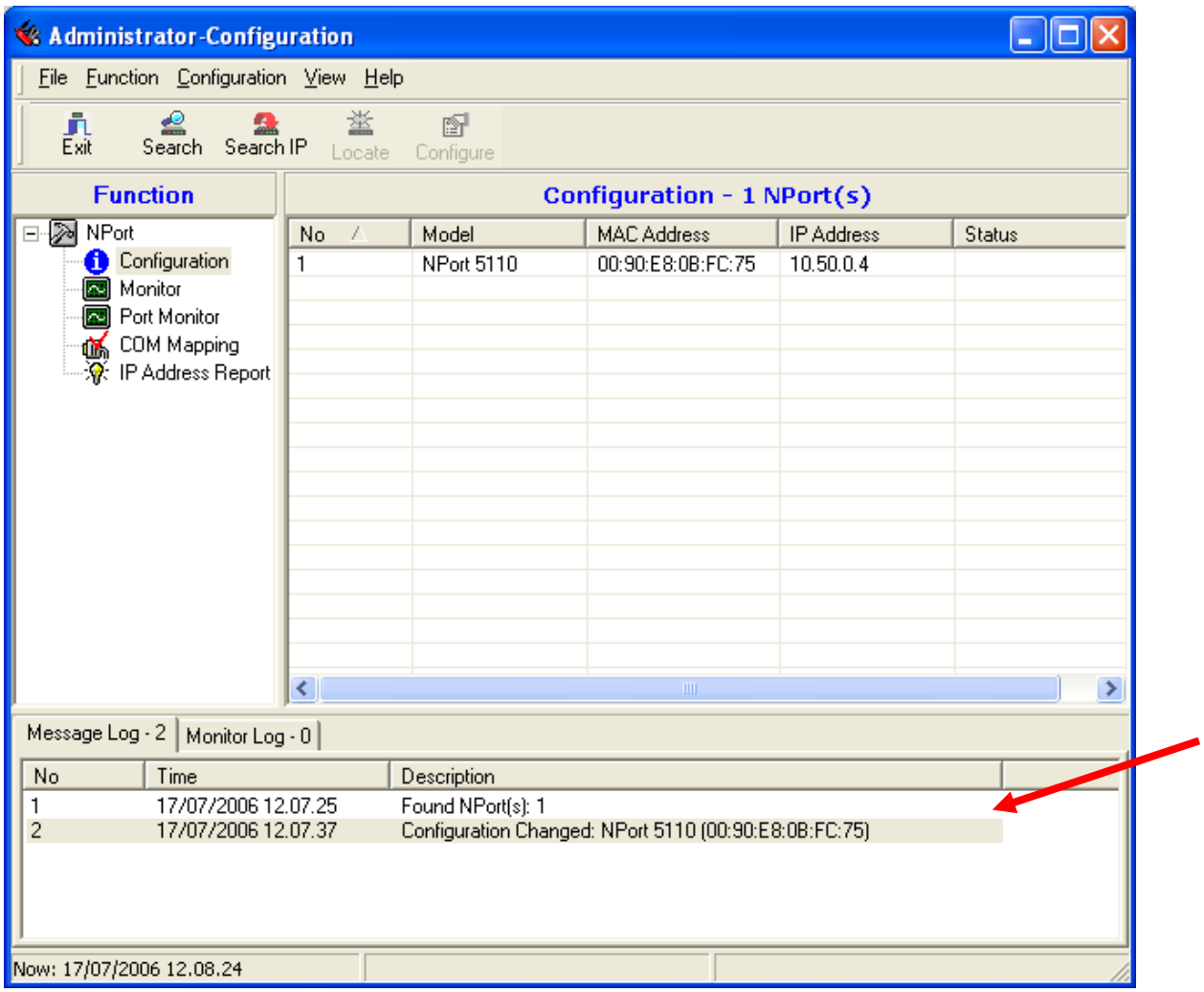
5 Selezionare l'opzione Operating Mode (1), verificare che sia presente l'indicazione Real COM Mode (2). In caso contrario spuntare l'opzione Modify (3), fare doppio clic sulla riga (4) e all'interno della finestra che si apre impostare in corrispondenza della riga Operating Mode la voce Real COM Mode (6), confermare con OK (7).
Chiudere la finestra Configuration con OK (5)



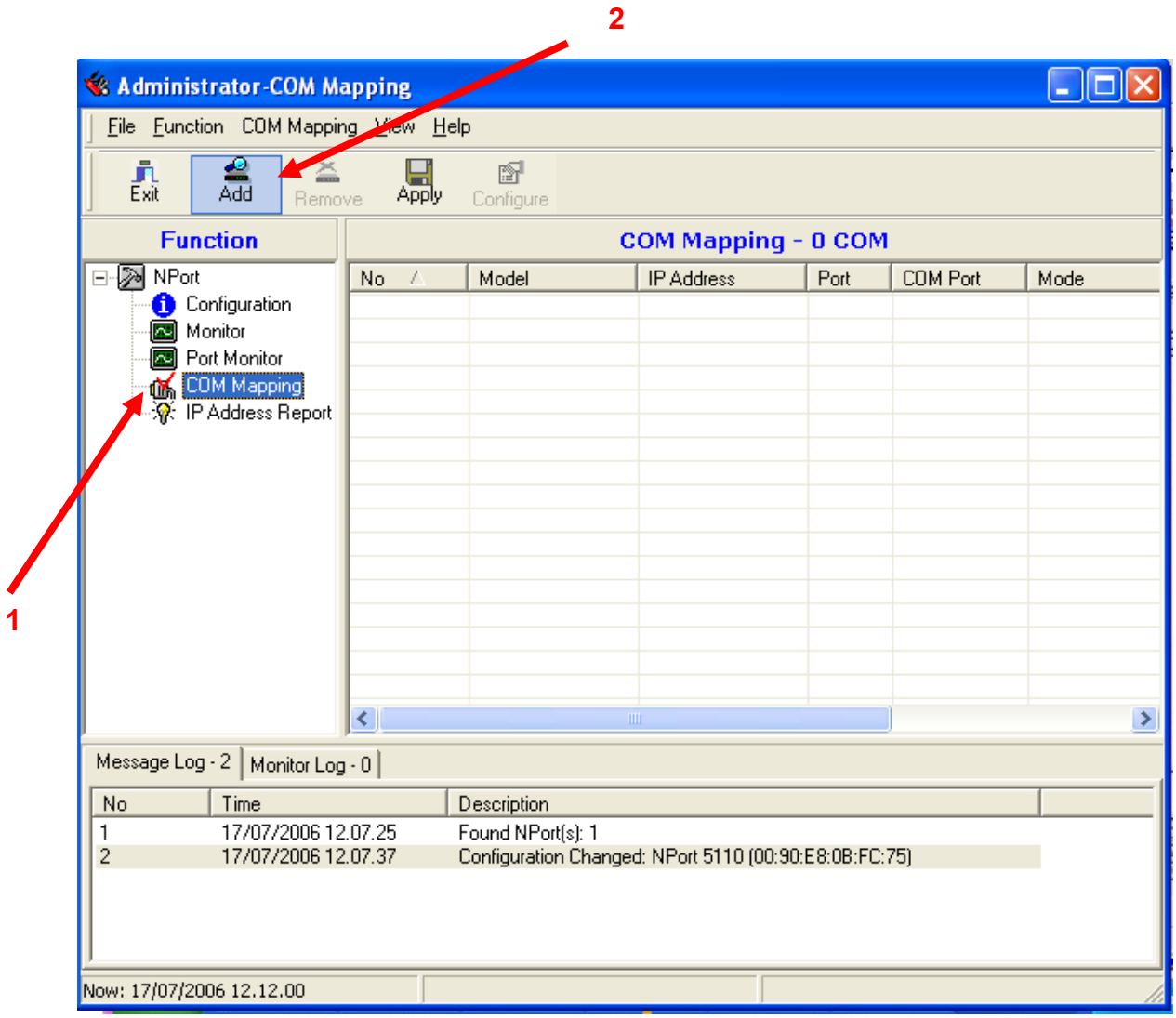
6 La modifica delle impostazioni è confermata con il seguente messaggio, premere OK.



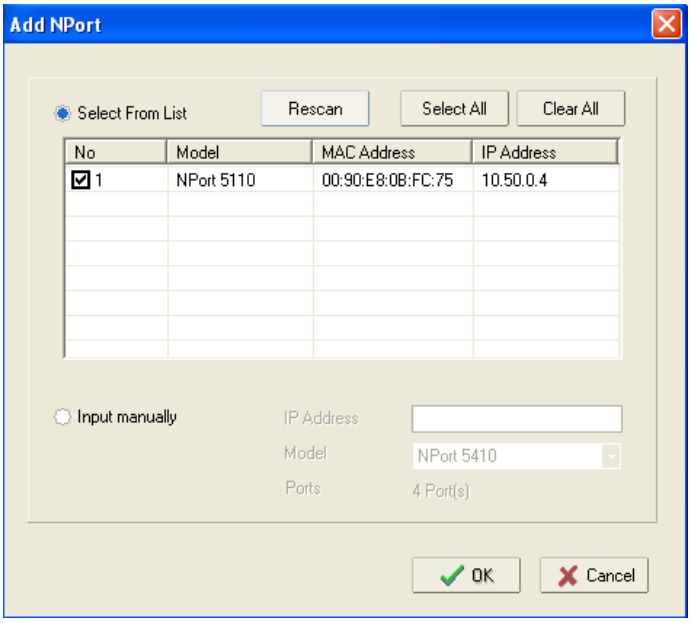
7 La finestra in basso indica la sequenza delle operazioni che sono state eseguite dall'apertura iniziale del programma:



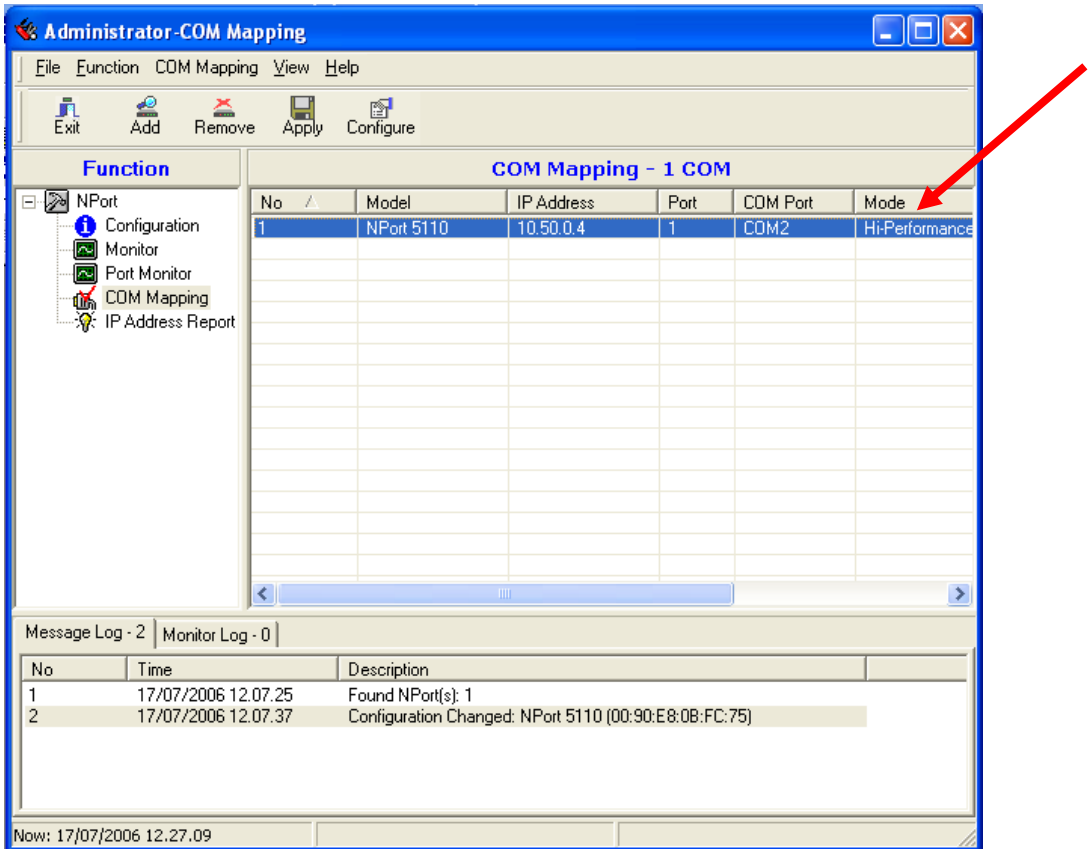
8 Selezionare la voce COM Mapping (1) e cliccare su Add (2):



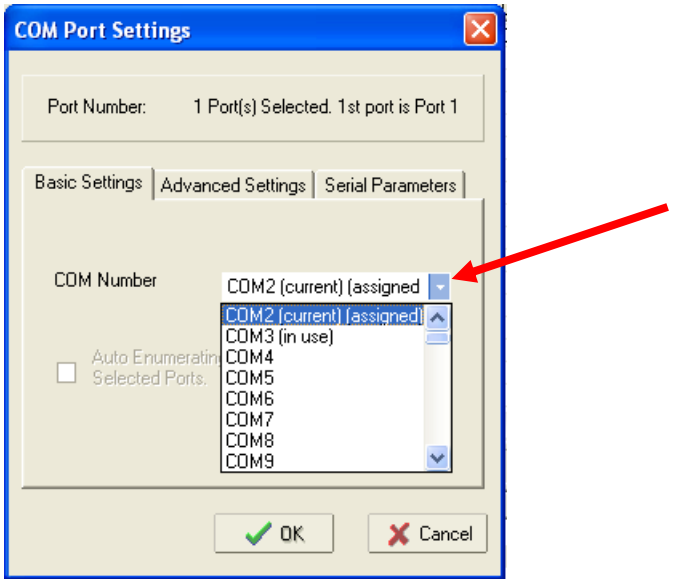
9 Confermare con OK l'aggiunta dell'interfaccia nella configurazione della porta seriale associata al dispositivo. Se sono visualizzate più interfacce spuntare quella che presenta l'indirizzo IP Address indicato in precedenza:



10 Il programma associa automaticamente l'interfaccia ad una porta seriale libera del PC di supervisione. Per modificare l'impostazione occorre fare doppio clic sulla riga del dispositivo aggiunto:

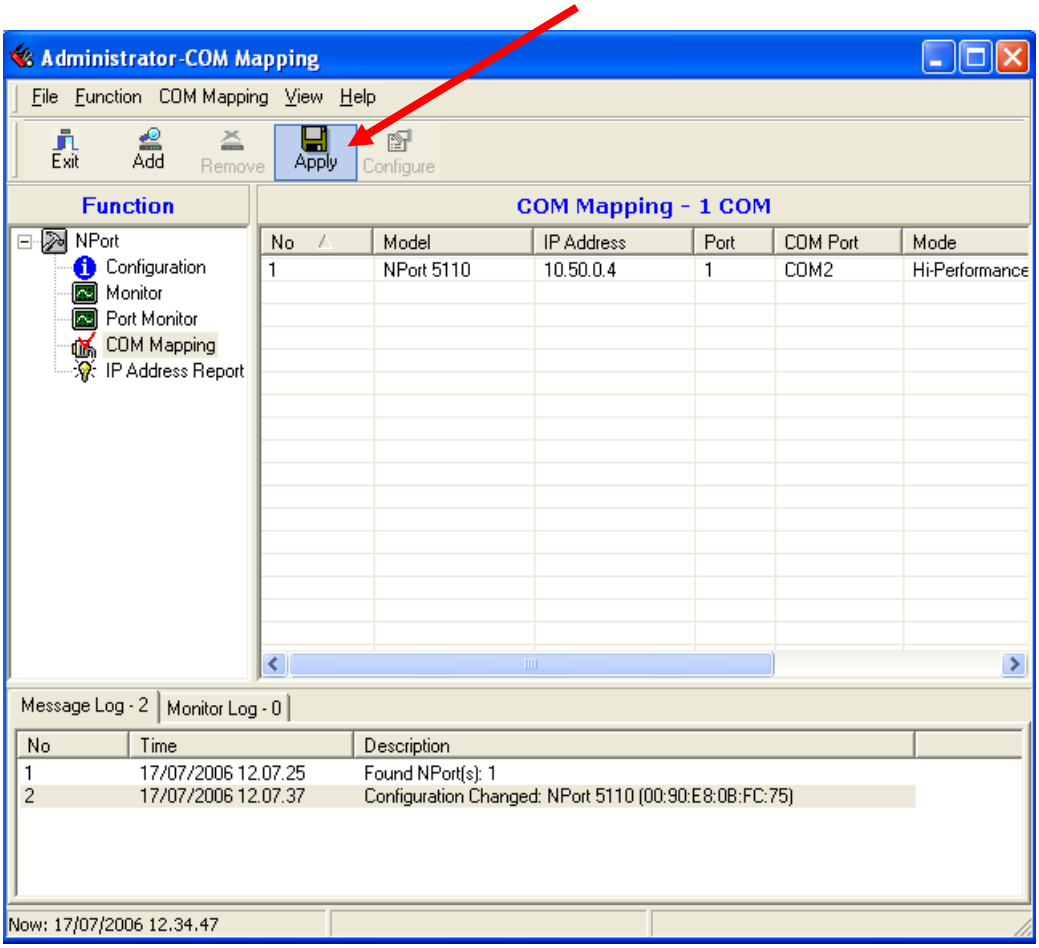


11 Si apre la seguente finestra. Cliccando sul menu a tendina selezionare la porta seriale desiderata non in uso (senza nessun commento fra parentesi). Premere OK per confermare.

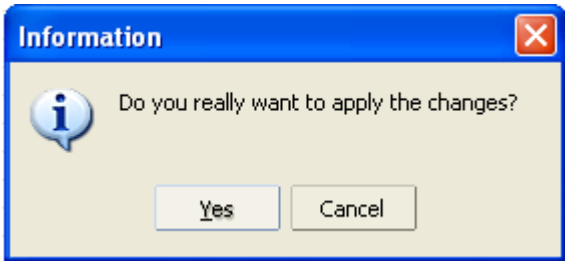


La porta seriale scelta sarà quella da utilizzare nel programma di supervisione DARDO PC LITE/MAP per eseguire la comunicazione tra programma ed impianto.

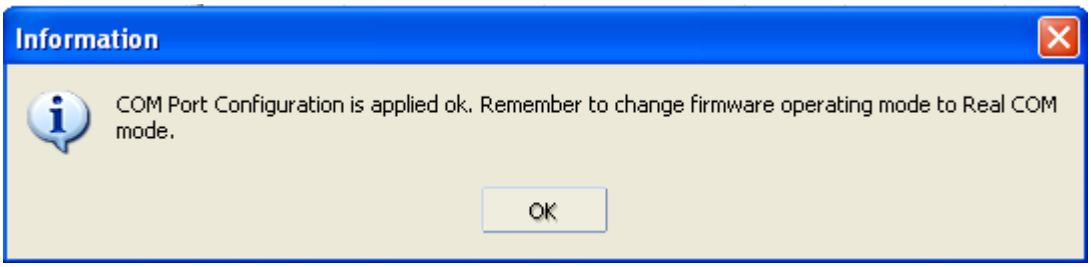
12 Al termine dell'assegnazione premere Apply per salvare le modifiche:



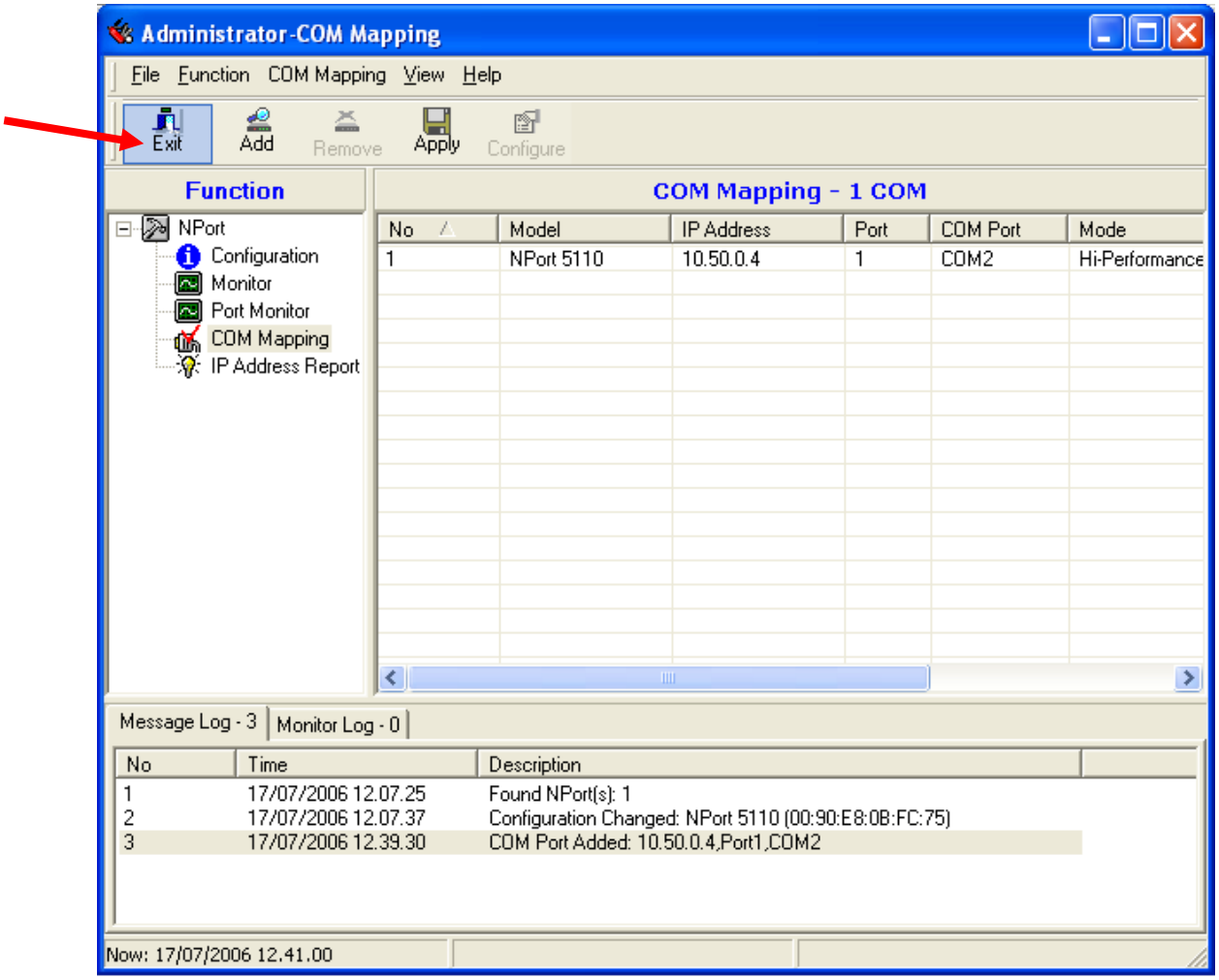
13 Confermare con Yes:



14 Confermare con OK:



15 L'interfaccia è stata configurata. È possibile uscire dal programma, cliccare su Exit:



Raccomandazioni in caso di problemi funzionali fra l'interfaccia RS232/Ethernet e PC

- Verificare la compatibilità tra il programma installato NPort Administrator Suite ed eventuali software Antivirus o Firewall installati nel PC

- Verificare con il comando DOS "ping" che l'indirizzo IP assegnato per l'Interfaccia RS232/Ethernet non sia un indirizzo duplicato

- Nel caso non sia possibile raggiungere l'Interfaccia RS232/Ethernet tramite il programma NPort Administrator Suite effettuare le seguenti prove:

    - Verificare la raggiungibilità dell'interfaccia da un PC connesso al medesimo HUB/SWITCH a cui è connessa

    - Verificare la raggiungibilità dal Server all'HUB/SWITCH a cui è collegata l'interfaccia

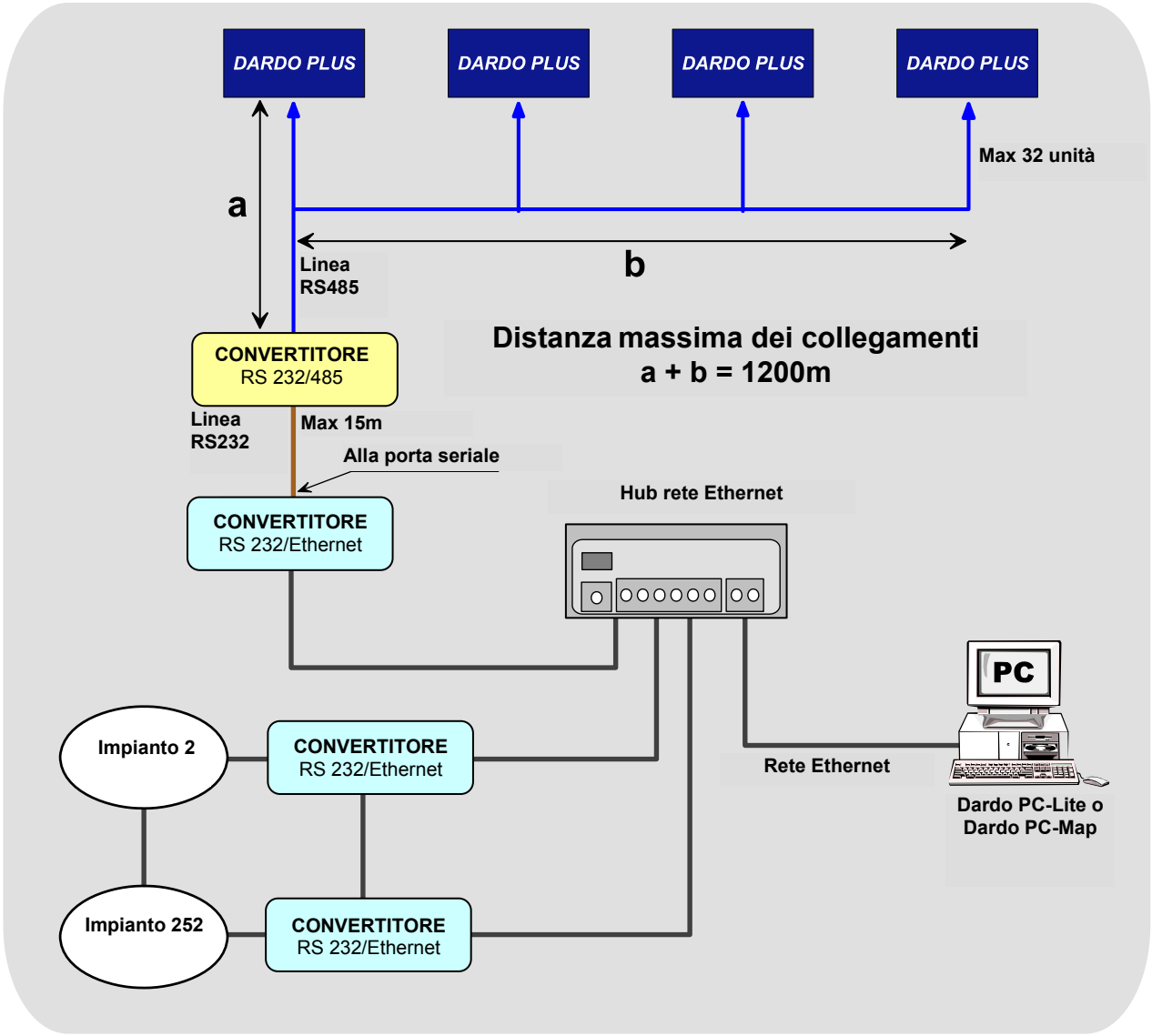
    - Se è possibile cancellare la tabella ARP dell'HUB/SWITCH a cui è connessa l'interfaccia o in caso estremo riavviare l'HUB/SWITCH stesso e rieseguire i test di raggiungibilità

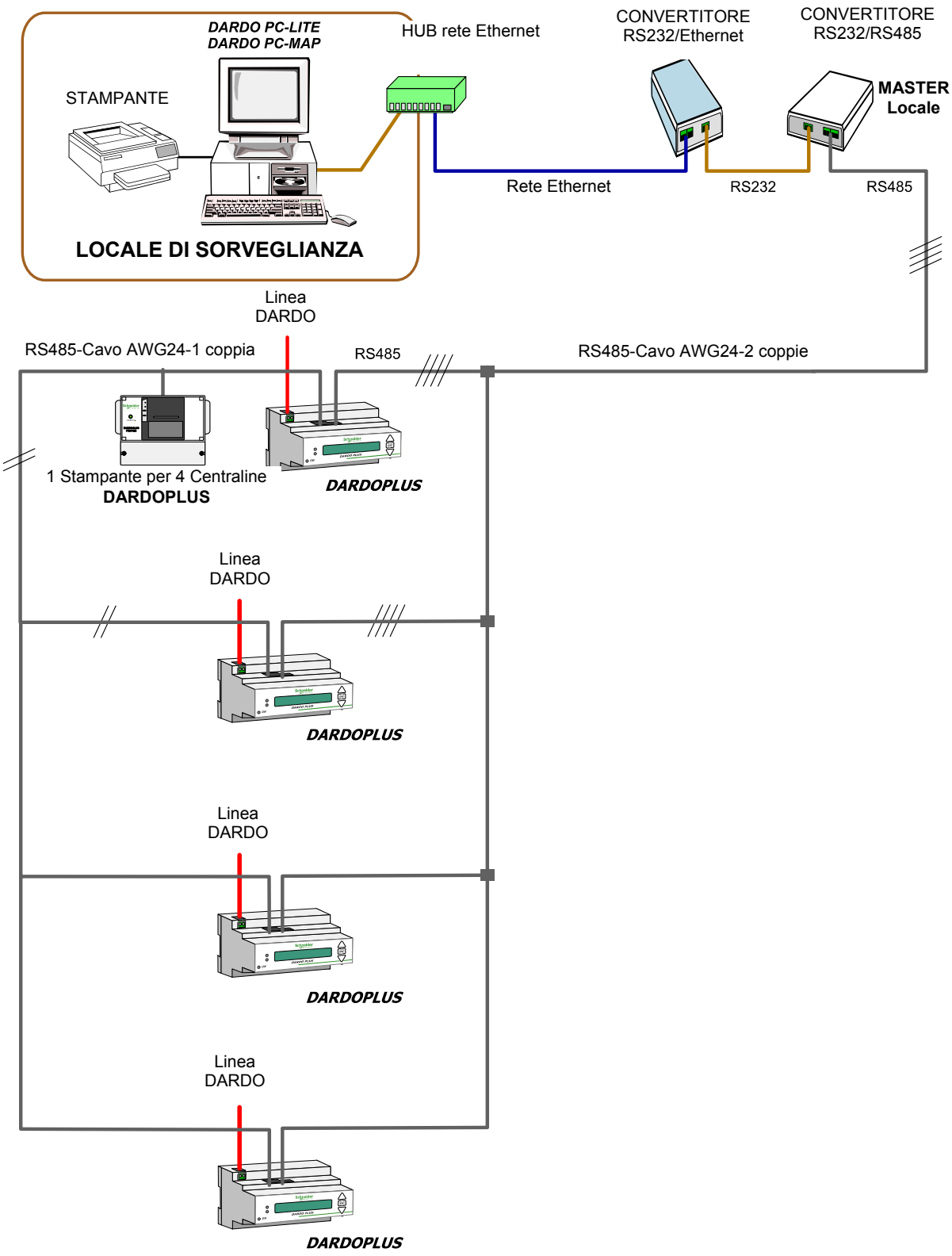
Appendici

Distanze massime di cablaggio

Nota: Il sistema di supervisione può monitorare dino a 256 impianti di luci di emergenza (meno il numero di porte seriali del PC).

Esempio di sistema di supervisione




DARDO PC-LITE
DARDO PC-MAP
HUB rete Ethernet
CONVERTITORE RS232/Ethernet
CONVERTITORE RS232/RS485
STAMPANTE
MASTER Locale
Rete Ethernet
RS232
RS485
LOCALE DI SORVEGLIANZA
Linea DARDO
RS485-Cavo AWG24-1 coppia
RS485
RS485-Cavo AWG24-2 coppie
1 Stampante per 4 Centraline DARDOPLUS
DARDOPLUS
Linea DARDO
DARDOPLUS
Linea DARDO
DARDOPLUS
Linea DARDO
DARDOPLUS

Note

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Foreword

This section must be read before any other documentation and before performing any type of operation on the product.

Correct functioning of the RS232/Ethernet Converter is dependent on exclusive use of SCHNEIDER ELECTRIC emergency equipment.

About this instruction manual

Who this manual addresses

This manual is intended for installation personnel with sufficient knowledge to work safely on hardware and software systems.

Importance of the manual

This instruction manual contains the information necessary for the installation and use of the **RS232/Ethernet Converter**.

The reproduction and transmission of this manual to Third Parties is strictly prohibited without the written consent of SCHNEIDER ELECTRIC.

SCHNEIDER ELECTRIC reserves the right to make any changes without prior notice for the purpose of improving its own products. This means that the equipment actually supplied may not be exactly the same as that shown in the figures in the manual.

Please ensure that any amendment or update furnished by the manufacturer is inserted and included in this instruction manual.

Keeping the manual in a safe place

The manual must be kept for future reference for the entire lifetime of the unit and must be made available for every operation or subsequent reinstallation of the unit itself.

Symbols used

In order to give emphasis to important information and mandatory instructions concerning the correct and safe use of the application, some parts of the text in this manual are preceded by one or more symbols.

These symbols are described briefly below.

General notes:

NOTE OR GENERAL INSTRUCTION

Limitation signs (rectangular shape):

POWER SUPPLY MUST BE TURNED OFF (USING THE MAIN SWITCH).

Hazard signs indicating danger for the person and/or the unit (triangular shape):

GENERIC HAZARD FOR PERSONS AND EQUIPMENT

ELECTRICAL HAZARD FOR THE PERSON AND/OR THE UNIT (ELECTROCUTION)

Warnings

- ✓ For technical information regarding the installation, product use, or malfunction, please refer to SCHNEIDER ELECTRIC.
- ✓ Installation and unit maintenance must be performed in a dust- and humidity-free area by qualified personnel in accordance with current legislation.
- ✓ A disconnection switch must be installed upstream of the power supply connection.
- ✓ **In the interests of safety and in order to guarantee efficient functioning of the RS232/Ethernet Converter, the equipment MUST have an earth connection in compliance with current legislation and standards.**
- ✓ Before carrying out any maintenance, disconnect the equipment from the mains.
- ✓ **The crossed out waste bin symbol indicates that the product should not be discarded in the municipal waste stream but should be taken to an authorised waste collection centre which can dispose of it properly, reducing its negative effects on the environment and on human health. For information on waste collection centres and on current waste disposal legislation, please contact your local waste disposal authority.**

WARNING:
FAILURE TO OBSERVE THE INSTRUCTIONS FOR THE INSTALLATION AND USE OF THE UNIT WILL VOID THE GUARANTEE.

Safety

- **The RS232/Ethernet Converter must be installed in a protected place**, free of dust, humidity and harmful vapours.
- Before you start any installation or maintenance operation on the equipment, **switch off the power supply**.
  The mains power supply line to the unit must be fitted with an ON-OFF switch so that the unit can be powered down whenever necessary.
- Use only the power unit that is included together with the unit.

- Ensure that the earth connection is safe and effective.
- The RS232/Ethernet Converter will only operate efficiently when used with SCHNEIDER ELECTRIC emergency lighting equipment.

Package contents

Open the packaging and check to see if all of the following items are present:

(1) **RS232/Ethernet Converter**
(2) 230 V AC/12 V DC power unit
(3) CD containing configuration software and product documentation
(4) Use and maintenance instructions

Description

The RS232/Ethernet Converter makes it possible to transfer the dialogue between a monitoring **PC** and the **DARDO** emergency lighting network control and management systems to an Ethernet network**.**

Intended use

RS232/Ethernet Converters are installed in monitoring systems consisting of:

- A remote **PC** with **MS Windows 98** operating system or higher, **Nport Administrator Suite configuration software** and **DARDO PC LITE** monitoring and management software.
  N.B.: The software and the corresponding manual are updated frequently. The contents of the CD may differ.

  The **Readme.txt** and **Version.TXT** files in the CD should be read. All the updates are included in these files.

- DARDOPLUS control units.

Each monitoring system may consist of 256 systems less the number of PC serial ports.
Every system consists of an **RS232/Ethernet** Converter and an **RS232/485 converter** connected to a maximum of 32 control units.

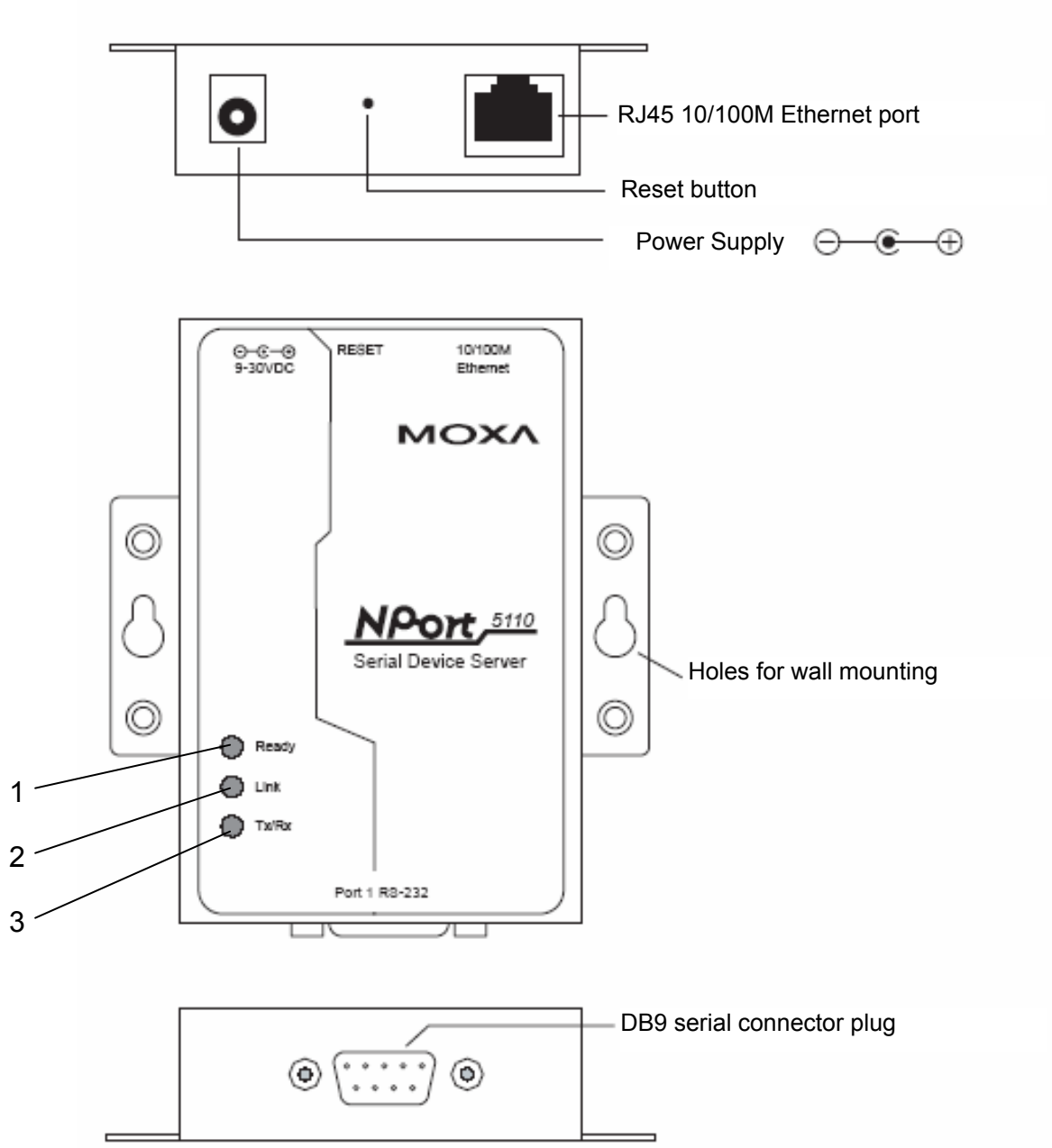
Technical Specifications

RS232/Ethernet Converter

General characteristics

- Input: 9 – 30 V DC
- Absorption: 200 mA (9V); 165 mA (12V)
- Power dissipation: 1.8 (9V): 1.98W (12V)
- Serial port: RS232 (9-pin)
- Ethernet port: 10/100 Mbps (RJ-45 connector)
- RS232 connecting cable: AWG24*
- Enclosure: Aluminium (1 mm)
- Size (B x H x D): 75.2 x 80 x 22 mm (with mounting brackets)
  52 x 80 x 22 mm (with mounting brackets)
- Operating temperature: min. 0 °C max +55 °C
- Storage temperature: min. -20 °C max +85 °C
- Relative humidity (non-condensed): 5 – 95%
- Weight: 134 g
- Overvoltage limiter (serial port): 15 kV ESV (electrostatic discharges)
- Magnetic isolation (Ethernet port): 1.5 kV
- Power supply line protection: 4 kV Burst (EFT), EN 61000 – 4 – 4
  2 kV Surge, EN61000 – 4 – 5
- Certifications: CE class A, FCC Class A, CUL, TÜV

(*) 3-wire shielded cable, cross-section 0.51 mm^2 with rigid wire or 0.16 mm^2 with flexible wire, AWG24 type. Recommended for connections up to 15 m.



Reset button

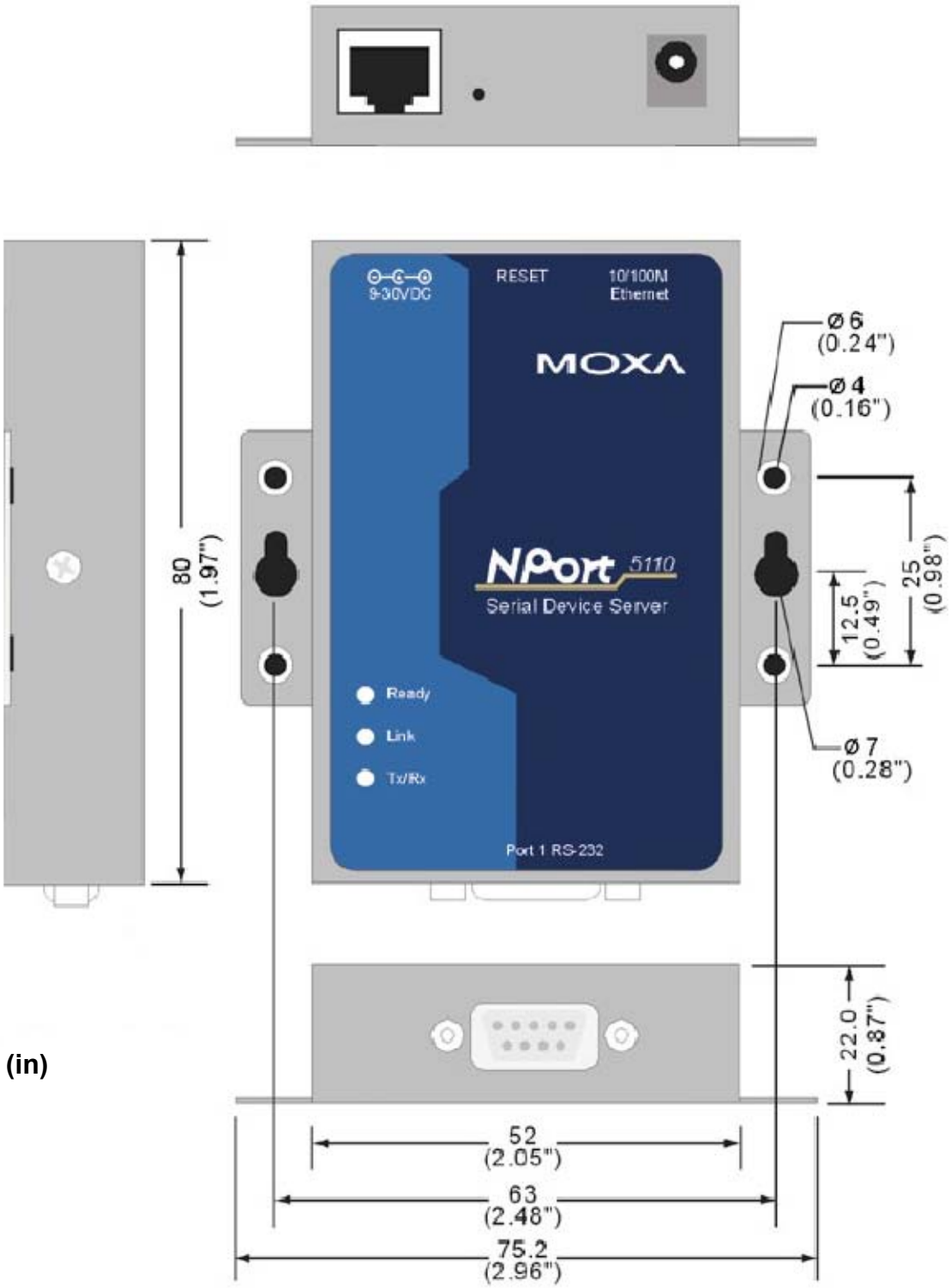
To restore default factory settings, press and hold down the Reset button for 5 seconds:

- To press the button, use a pointed object.
- When the button is pressed, the Ready LED (1) starts flashing.
- The default configuration takes approximately 5 seconds to load (when the Ready LED (1) stops flashing).
- You can then release the button.

LED operation

LED name	LED colour	LED function
Ready (1)	Red	Fixed light: The converter is powered up and is being initialised. Flashing light: Indicates an IP address conflict or that the network server is not responding correctly.
	Green	Fixed light: The converter is powered up and is running normally. Flashing light: The converter has been identified by the NPort Administrator software.
	OFF	The converter is off or there is a fault in the power supply.
Link (2)	Orange	Ethernet 10 Mbs connection.
	Green	Ethernet 100.Mbs connection.
	OFF	Ethernet cable disconnected or short circuited
Tx / Rx (3)	Orange	The serial port is receiving data
	Green	The serial port is transmitting data.
	OFF	No data transmitted or received through the serial port.

Mechanical characteristics



Unit = mm (in)

RS232/Ethernet Converter Power Unit

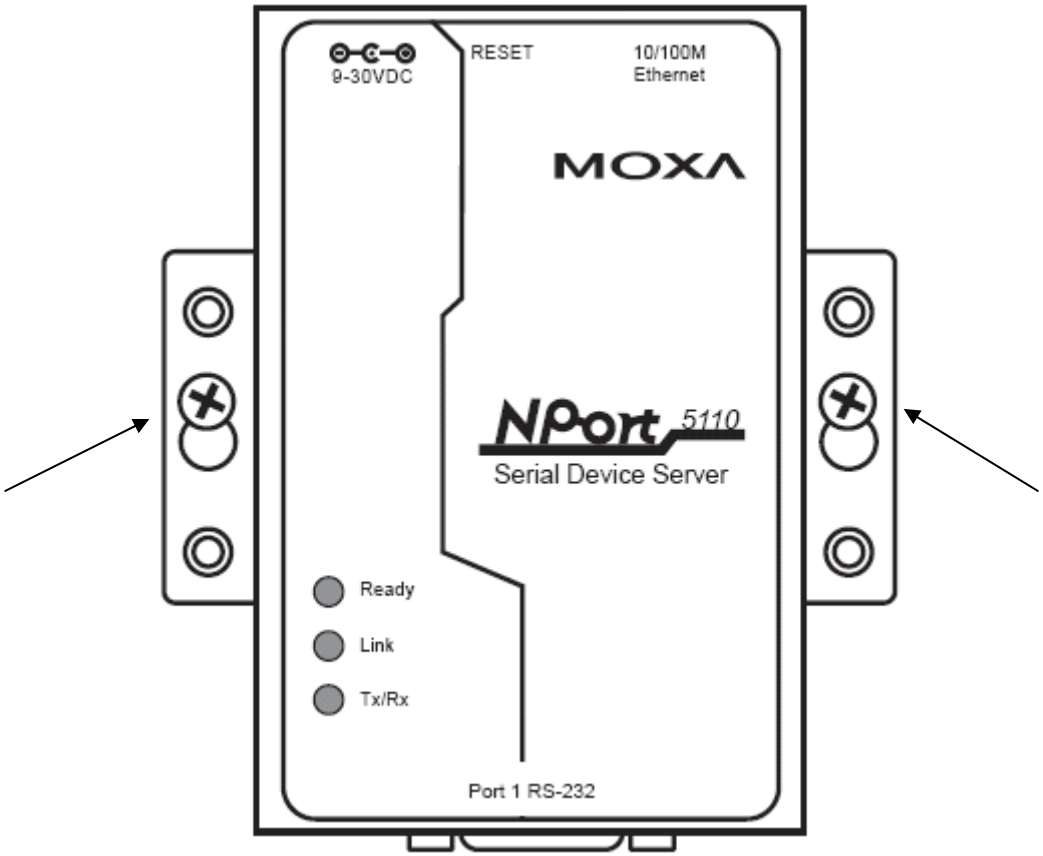
General characteristics

- Input: 230 V AC 50 Hz, 49 mA
- Output: 12 V DC 400 mA
- Power dissipation: 6.5 W
- Size (B x H x D): 51 x 63 x 41 mm
- Operating temperature: min. 0 °C max +55 °C
- Storage temperature: min. –20 °C max +85 °C
- Relative humidity (non-condensed): 5 – 95%
- Weight: 317.5 g
- Cable length: 1818 mm
- Certifications: CE, TÜV

Installation

Mounting the Converter

The converter can be wall mounted using the holes made for this purpose in the side tabs.



System requirements

The minimum system requirements for installation of the RS232/Ethernet Converter are shown below.

Operating system:	Windows 98, 2000, NT 4.0, XP (+sp2)
Processor:	Pentium 200 MHz or higher
Memory:	64 MB RAM
Hard disk:	2 GB
Graphic card:	resolution 1024 x 768
CD ROM drive	
Mouse	
Windows 98 compatible keyboard	
1 serial port	
Ethernet card 10/100 Mbps	

Information for installation

To install the **RS232/Ethernet Converter** proceed as follows:

1) Connect the converter to an Ethernet network (see Ethernet network connections

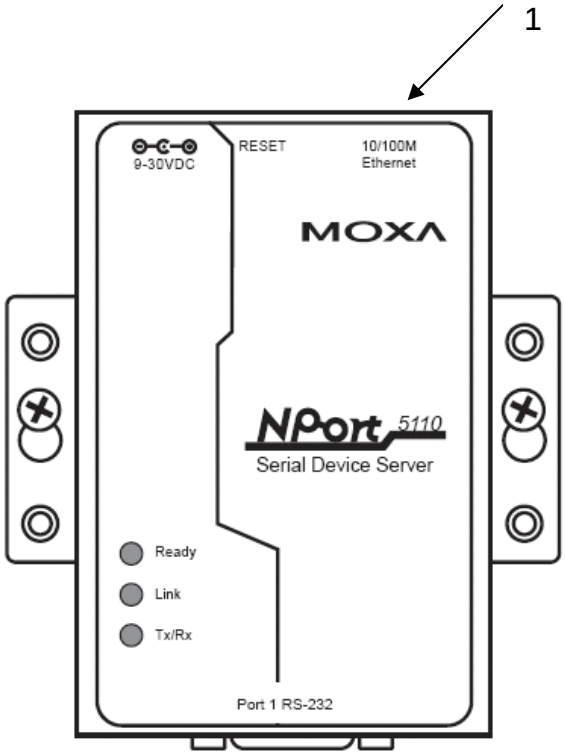
2) Connect the converter to the **RS232** port of the **DARDO RS232/485 Converter**
(see Serial cable connections).
See example of connection with SCHNEIDER ELECTRIC monitoring systems
(see Appendix section)

3) Power up the converter using the power unit provided (see Power unit connections)

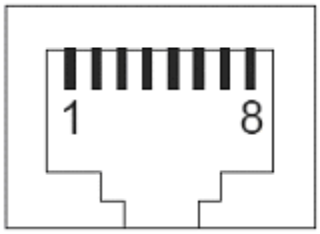
4) Install the configuration software located in the CD provided and configure the converter (see Section 5).

Ethernet network connections

Connect the Ethernet 10/100 M port (1) of the converter to a network HUB/SWITCH device using an **RJ45** cable.



Ethernet 10/100 M port of the converter

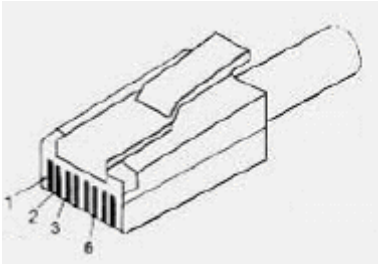


PIN Number	Ethernet Signals
1	Tx+
2	Tx-
3	Rx+
6	Rx-

RJ45 cable

Use a straight RJ45 cable:

Pin No. 1	Data transmission +
Pin No. 2	Data transmission -
Pin No. 3	Data reception +
Pin No. 4	Reserved
Pin No. 5	Reserved
Pin No. 6	Data reception -
Pin No. 7	Reserved
Pin No. 8	Reserved



Connections:
C = RS232/Ethernet Converter side
H = Ethernet HUB/SWITCH side

CAUTION:

USE A UTP (UNSHIELDED TWISTED PAIR) CATEGORY 5 CABLE, SUITABLE FOR THE ETHERNET NETWORK UTILISED.

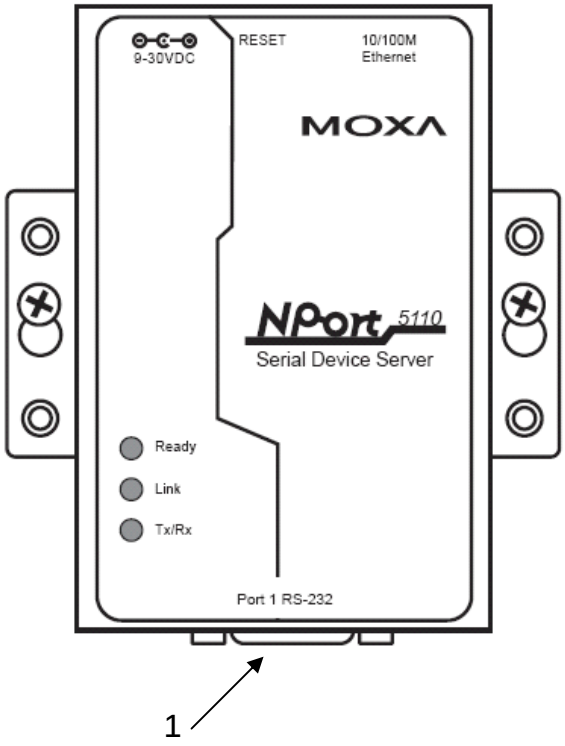
CHECK THAT THE 10/100 MBPS PORTS OF THE HUB/SWITCH USED HAVE AUTOSENSING.

CHECK FOR FILTERING ON THE ACCESS PORTS OF THE HUB/SWITCH CONFIGURATION (FOR EXAMPLE, "PORT SECURITY" CONFIGURATION).

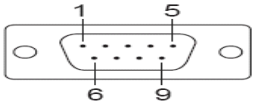
CHECK WHETHER THERE ARE ANY TCP/IP RESTRICTIONS ON THE LAN EQUIPMENT (FOR EXAMPLE "ACCESS CONTROL LIST" TYPE CONFIGURATIONS).

Serial cable connections

Connect the RS232 serial port (1) of the **RS232/Ethernet Converter** to the RS232 port of **DARDO RS232/485 Converter**, connected in turn to an OVA monitoring system (see APPENDIX section)



Converter RS232 port

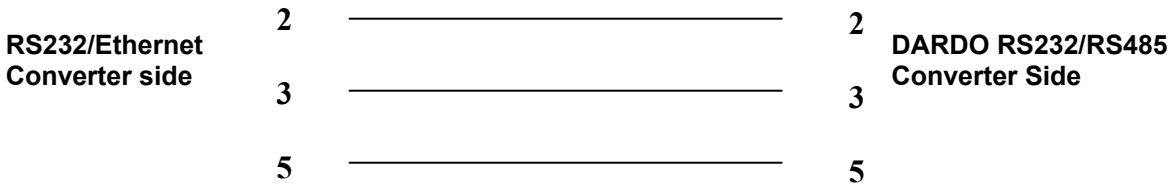


PIN Number	RS232 signals used
1	---
2	RxD
3	TxD
4	---
5	GND
6	---
7	---
8	---
9	---

Serial cable

The serial cable must be pin to pin shielded 3-wire type (AWG24: size 0.51mm^2 with rigid wire or 0.16 mm^2 with flexible wire). The connectors at the two ends of the cable are DB9 sockets:

Pin connections of DB9 serial cable connectors

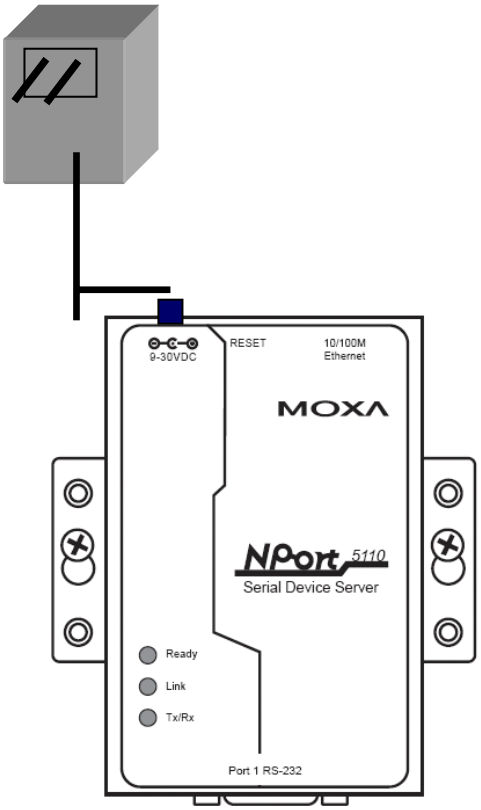


CAUTION:

THE SERIAL CABLE MUST NOT BE MORE THAN 15 METRES LONG.

Power unit connections

Connect the power unit provided to the **RS232/Ethernet Converter**:



Connect the converter to the main 230 V AC 50 Hz power line

Configuring the RS232/Ethernet Converter

Before it can be used, the **RS232/Ethernet Converter** must be configured.
To do this, proceed as follows.

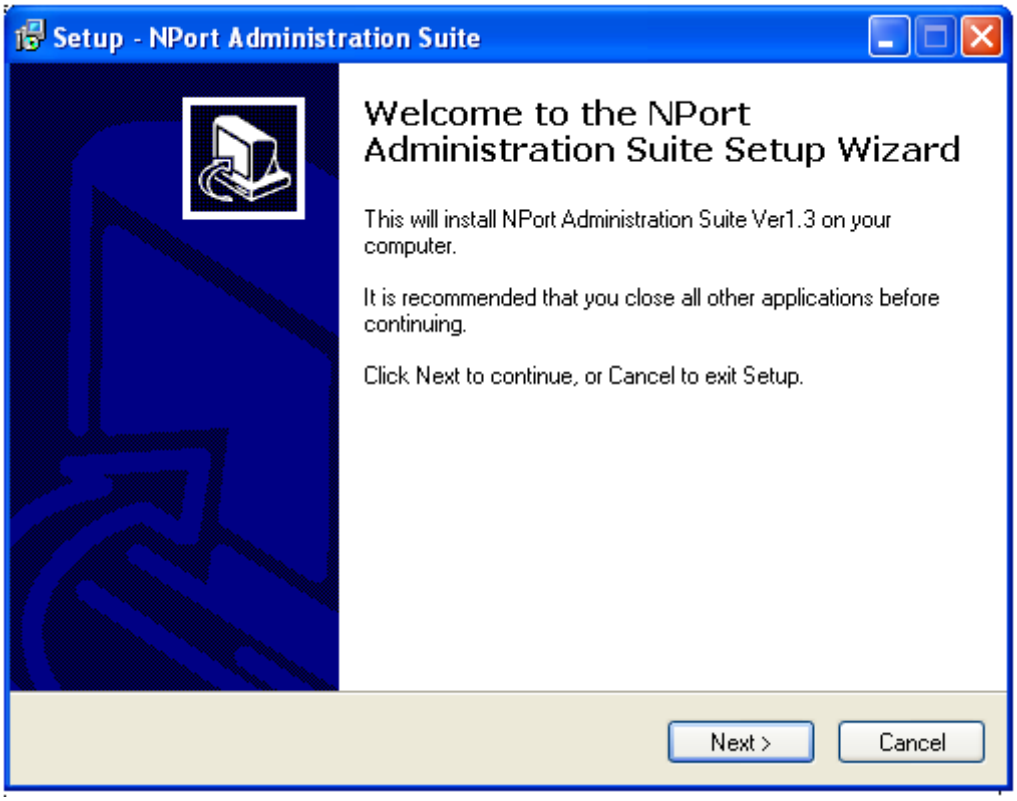
Configuration program installation

Install the configuration program on the monitoring **PC:**

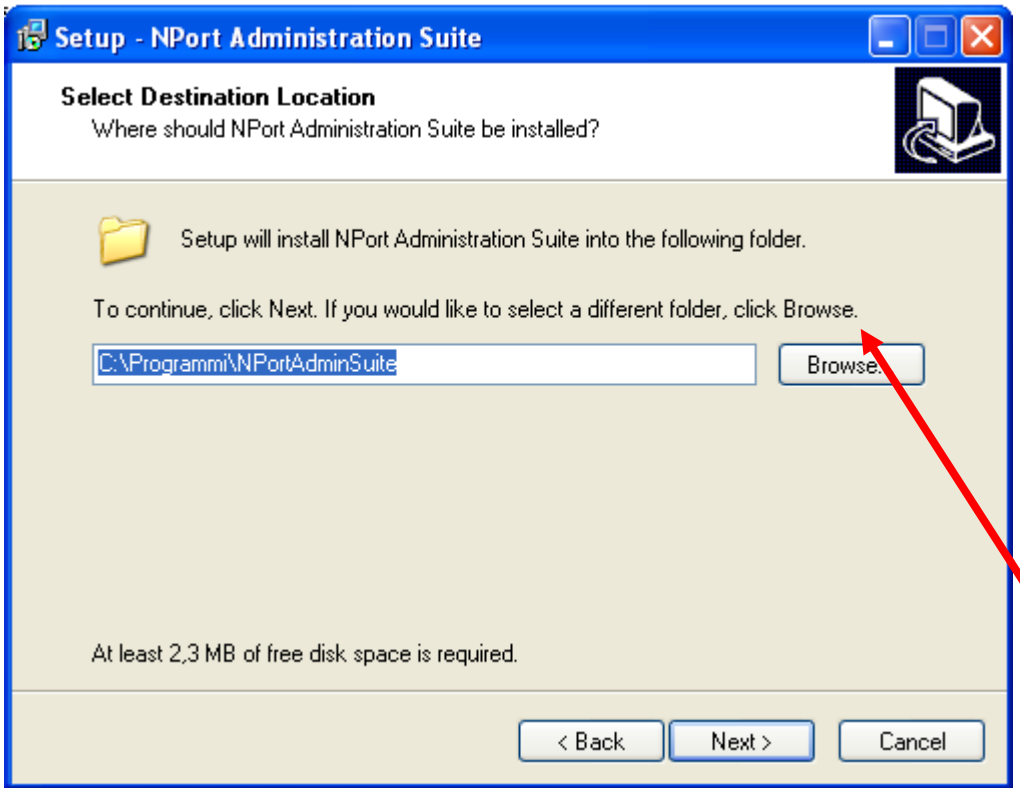
1 Insert the CD provided into the CD-ROM drive of the PC. Using the Windows Resource Manager, open the **\NPort 5110\Software\Windows** folder on the CD. Run **setup.exe**

CAUTION:

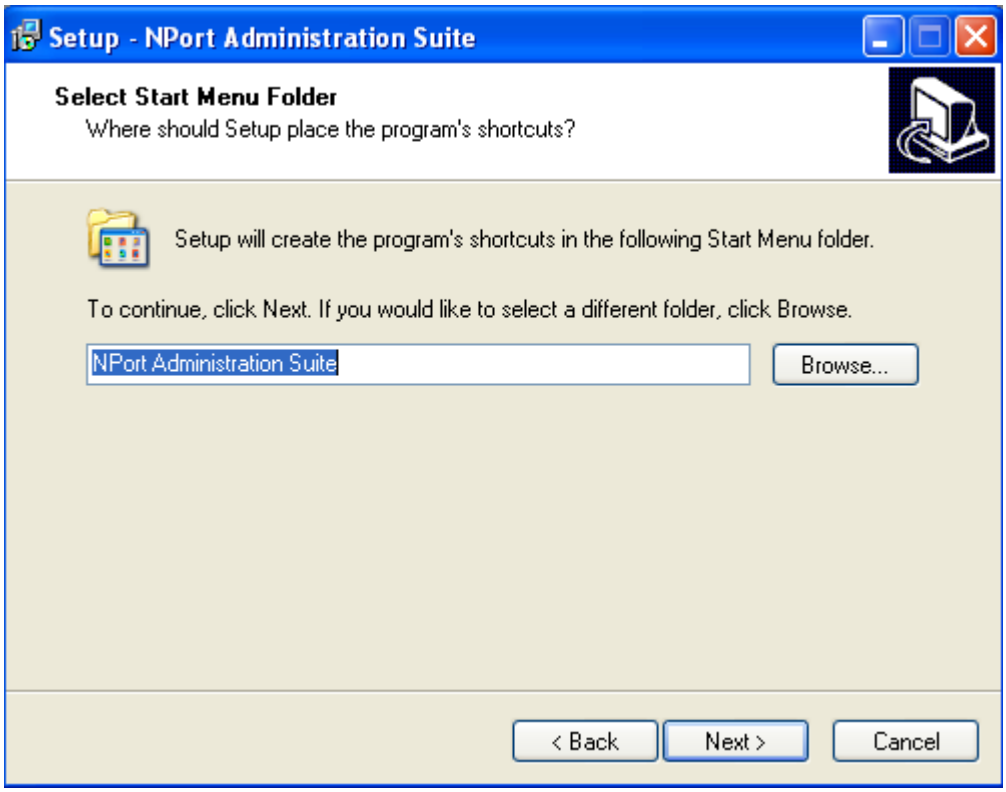
THE SOFTWARE AND THE RELATED MANUAL ARE UPDATED FREQUENTLY, AND CONSEQUENTLY, THE CONTENTS OF THE ACCOMPANYING CD MAY DIFFER.
THE DISPLAY SCREENS MAY DIFFER FROM THOSE SHOWN BELOW BUT THE PROCEDURE IS THE SAME.
THE **README.TXT** AND **VERSION.TXT** FILES IN THE CD SHOULD BE READ. ALL THE UPDATES ARE INCLUDED IN THESE FILES.



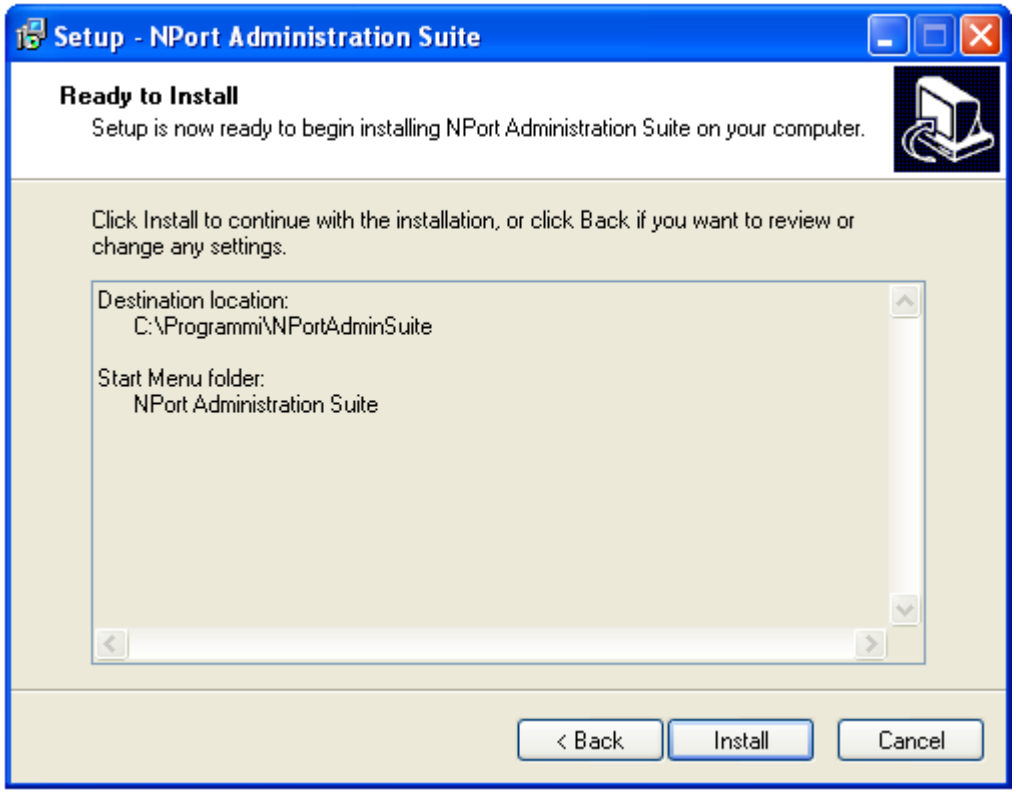
2 Clic **Next**



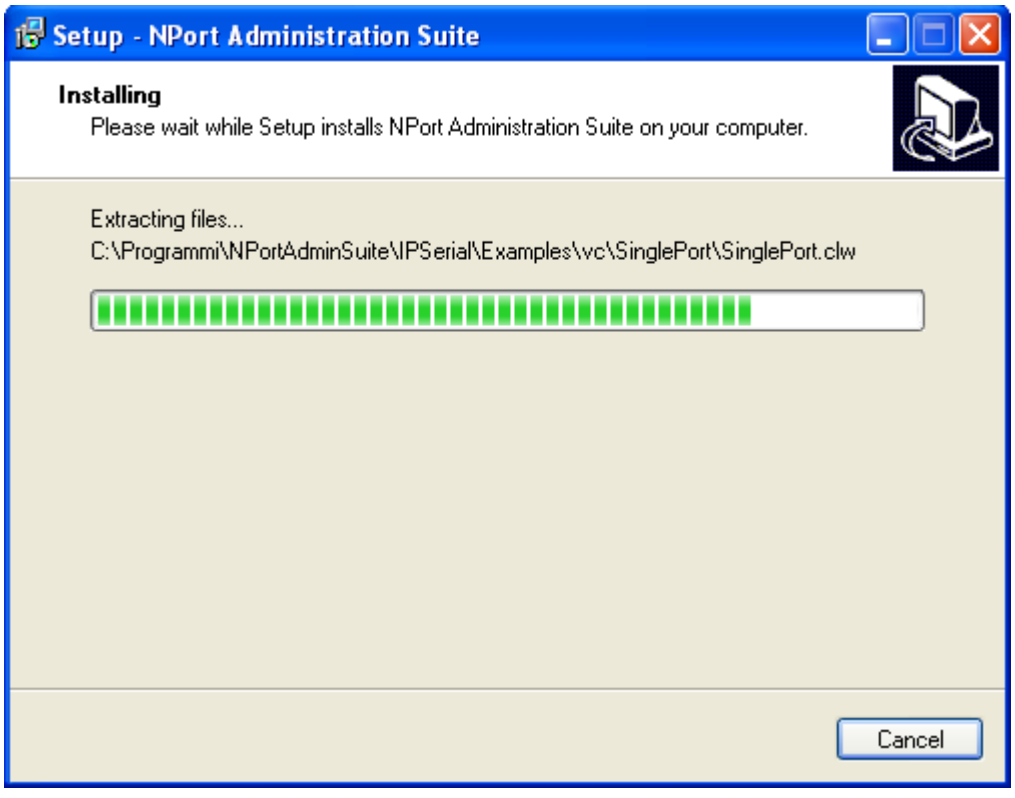
3 Click **Next.**
To modify the destination directory, press button (1), and, in the window that appears, select the desired folder.



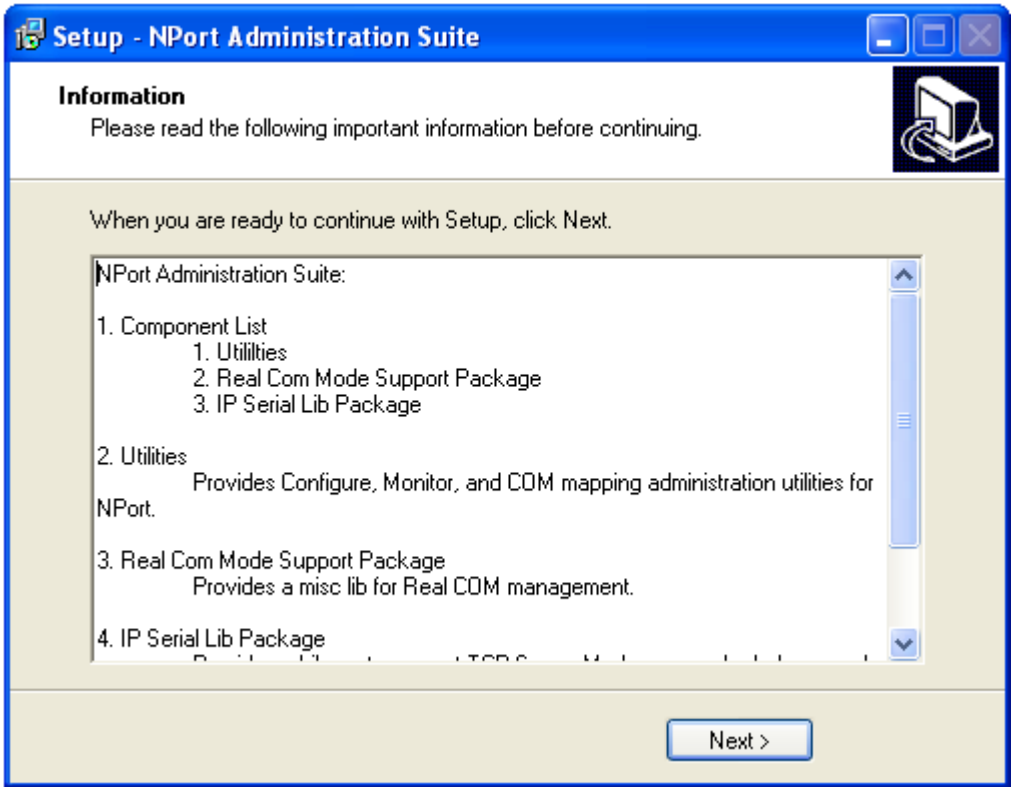
4 Click **Next**



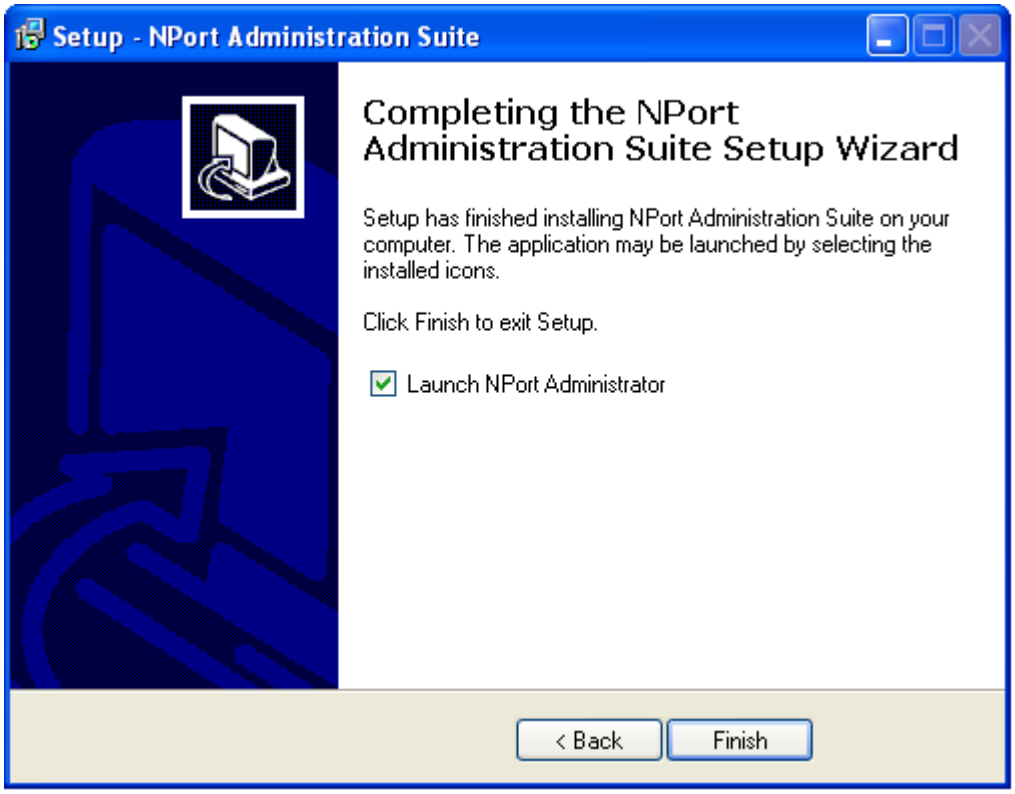
5 Click **Install**



6 The progress bar indicates installation progress



7 Click **Next**

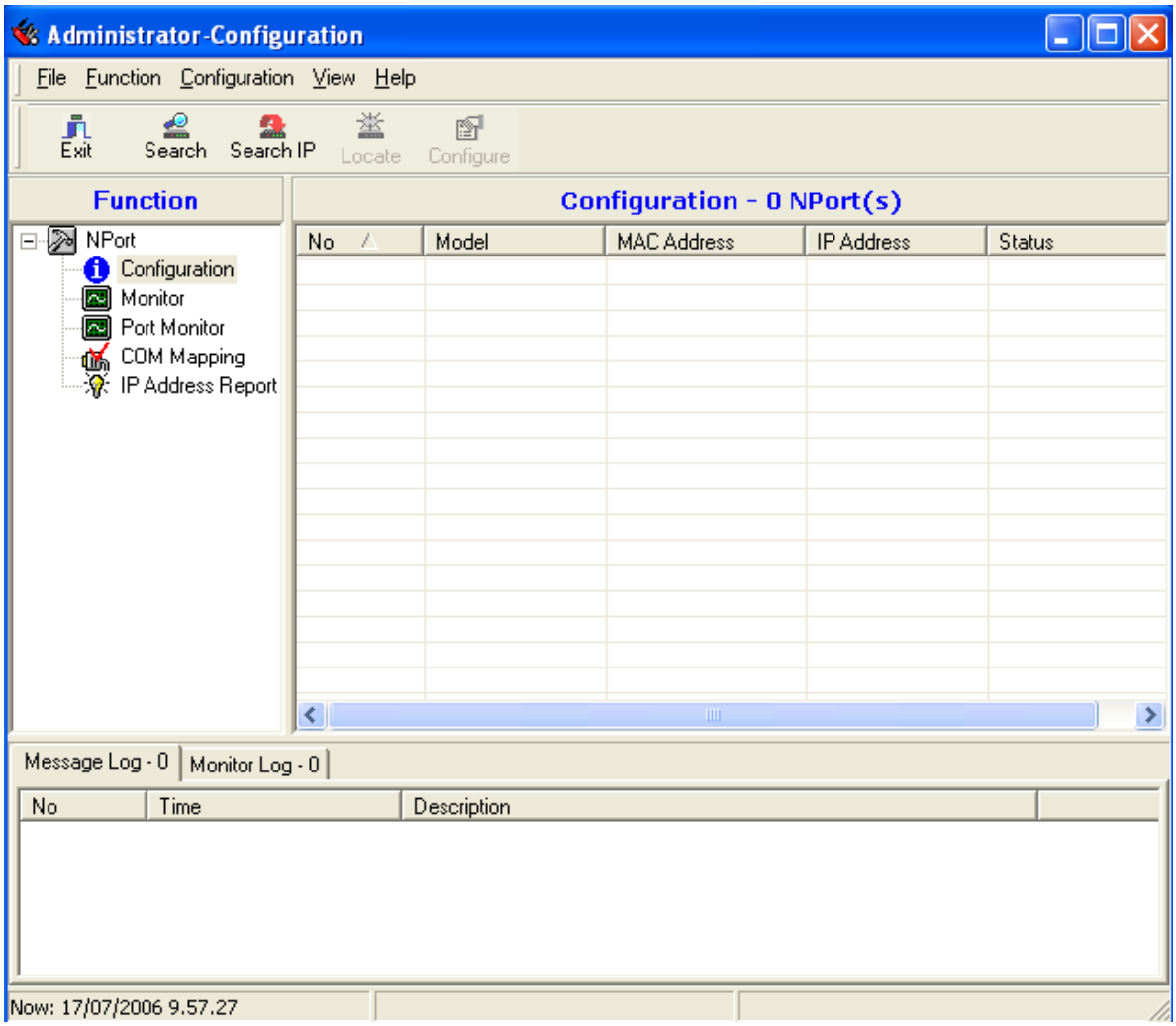


8 **Click Finish** to end installation and start the configuration program

Configuration

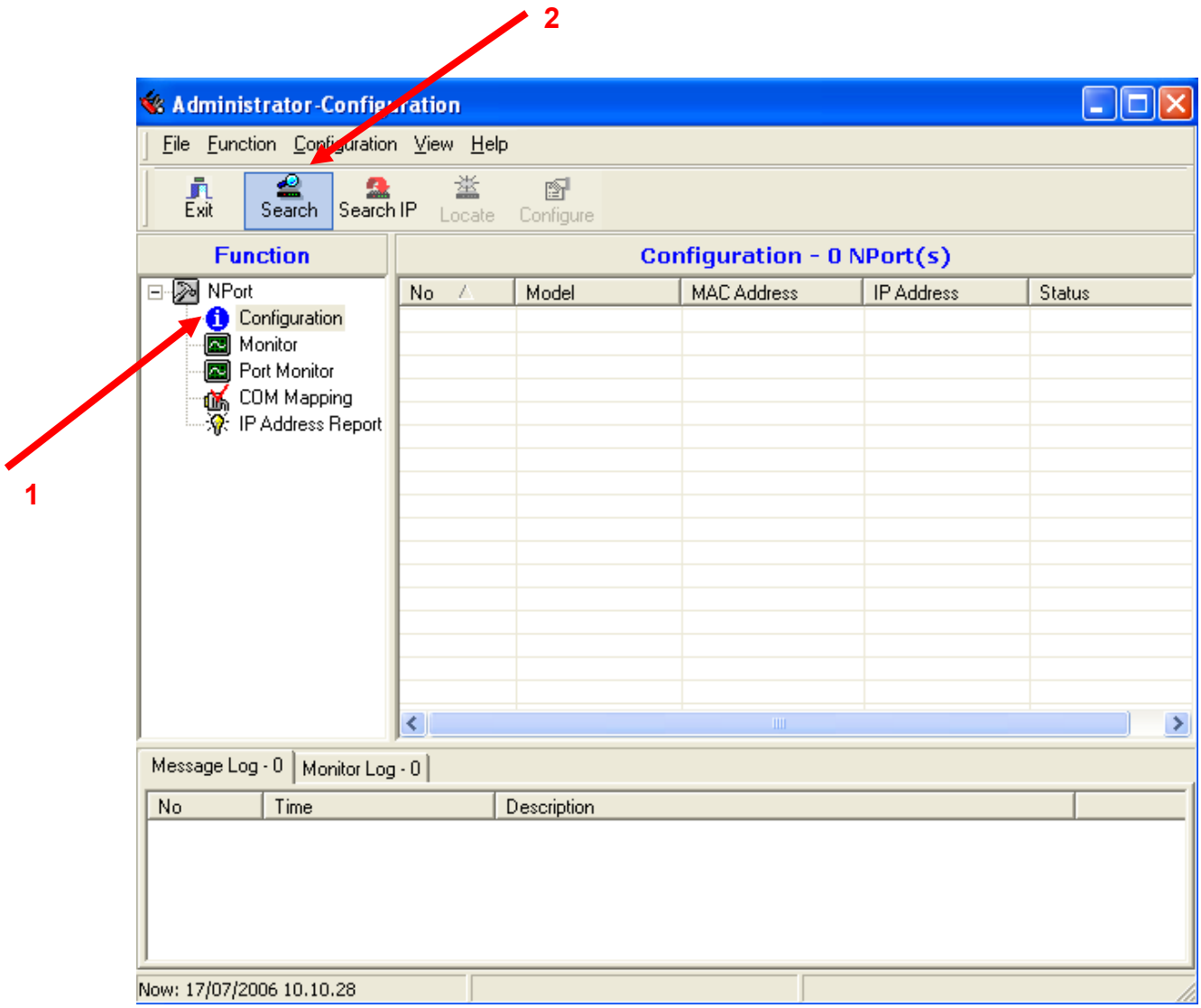
The configuration program starts automatically upon completion of installation (as described in the preceding section). To start the program at any other time, click **Start => Programs => NPort Administration Suite => NPort Administrator**.

The opening screen is the following:

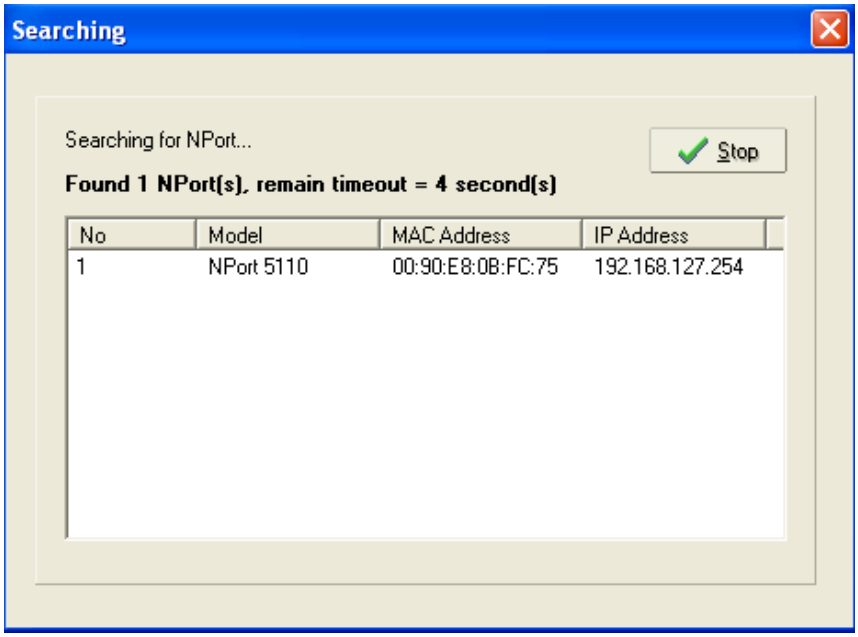


Before configuring, ensure that the converter has been installed as described under Installation. With the program running, proceed as follows:

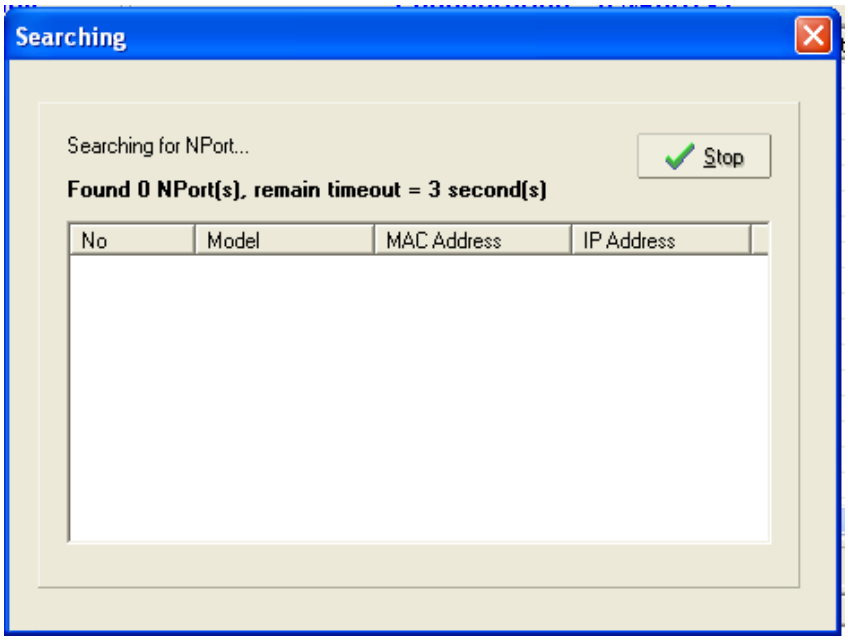
1 Select Configuration (1) and click Search (2):



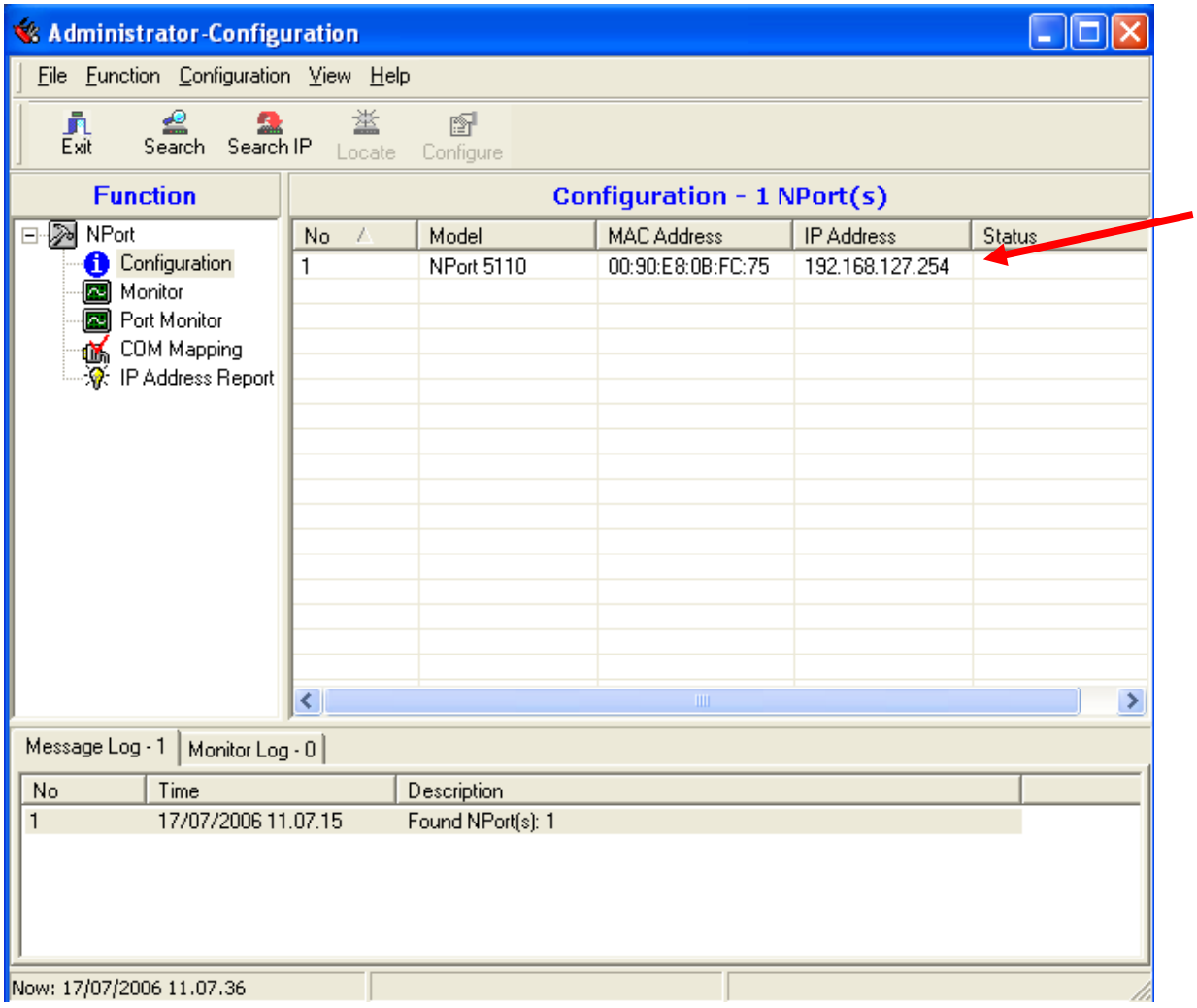
The following window is displayed for a few seconds to indicate that the program is searching for and identifying the converter connected to the Ethernet network:



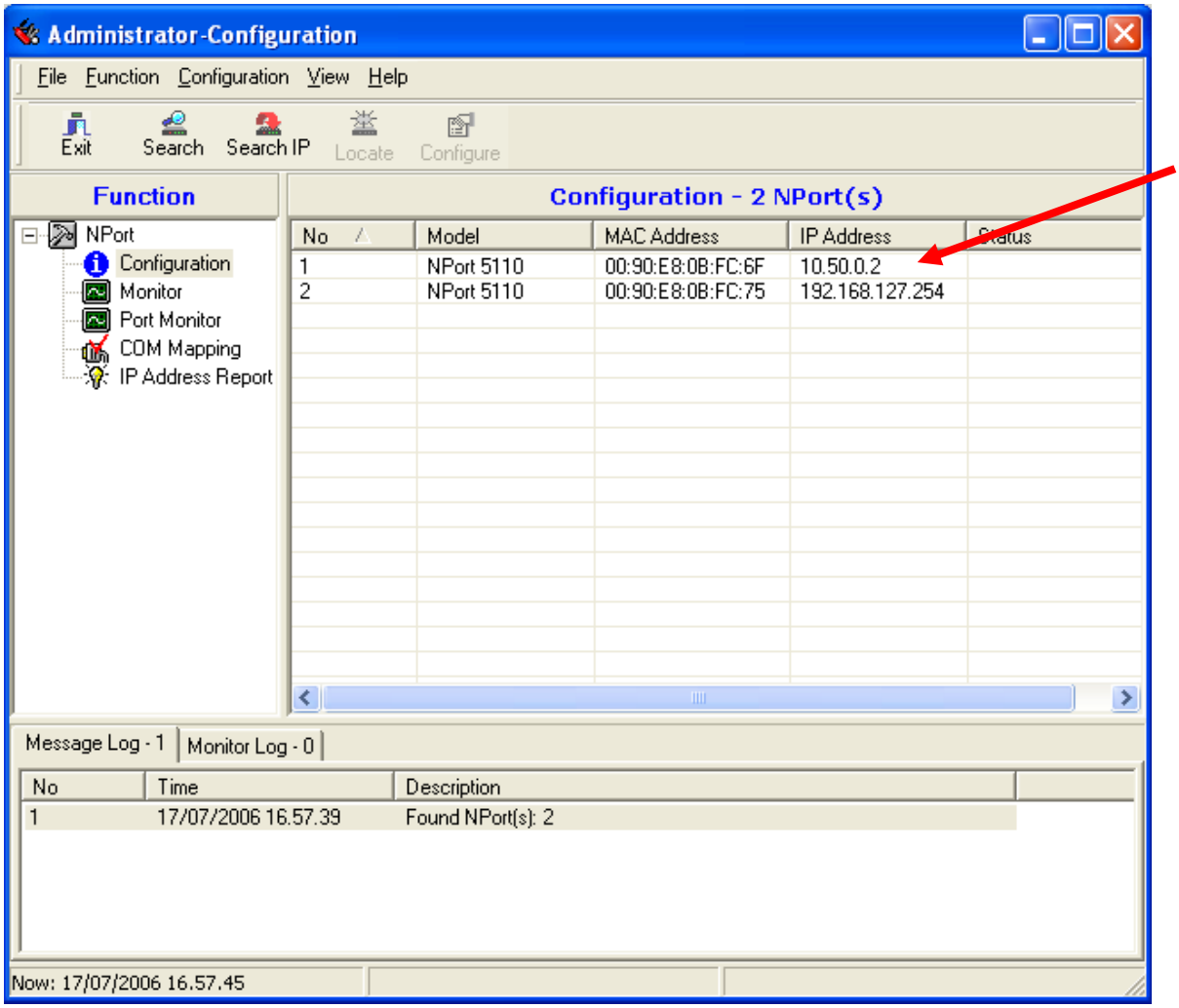
If the converter is not found because it is off or not connected to the Ethernet network, the window remains blank:



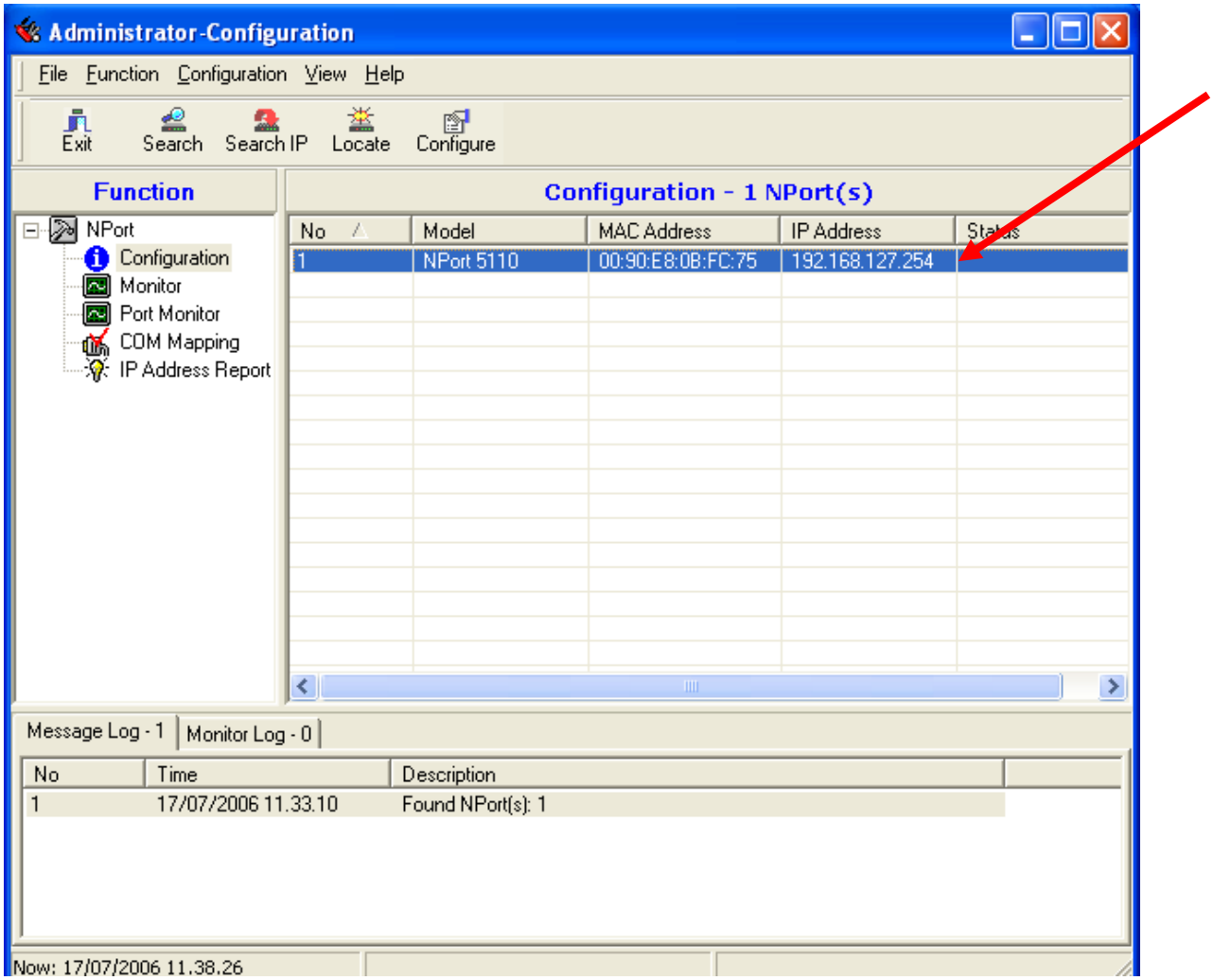
2 The converter connected to the Ethernet network appears on a line with the following information: Connected converter number, Model, MAC Address, IP Address.
Check the Model, MAC Address and IP Address data against those shown on the technical specifications label in the **RS232/Ethernet Converter**.



Other converters, if any, already connected to the LAN network are displayed on other lines:



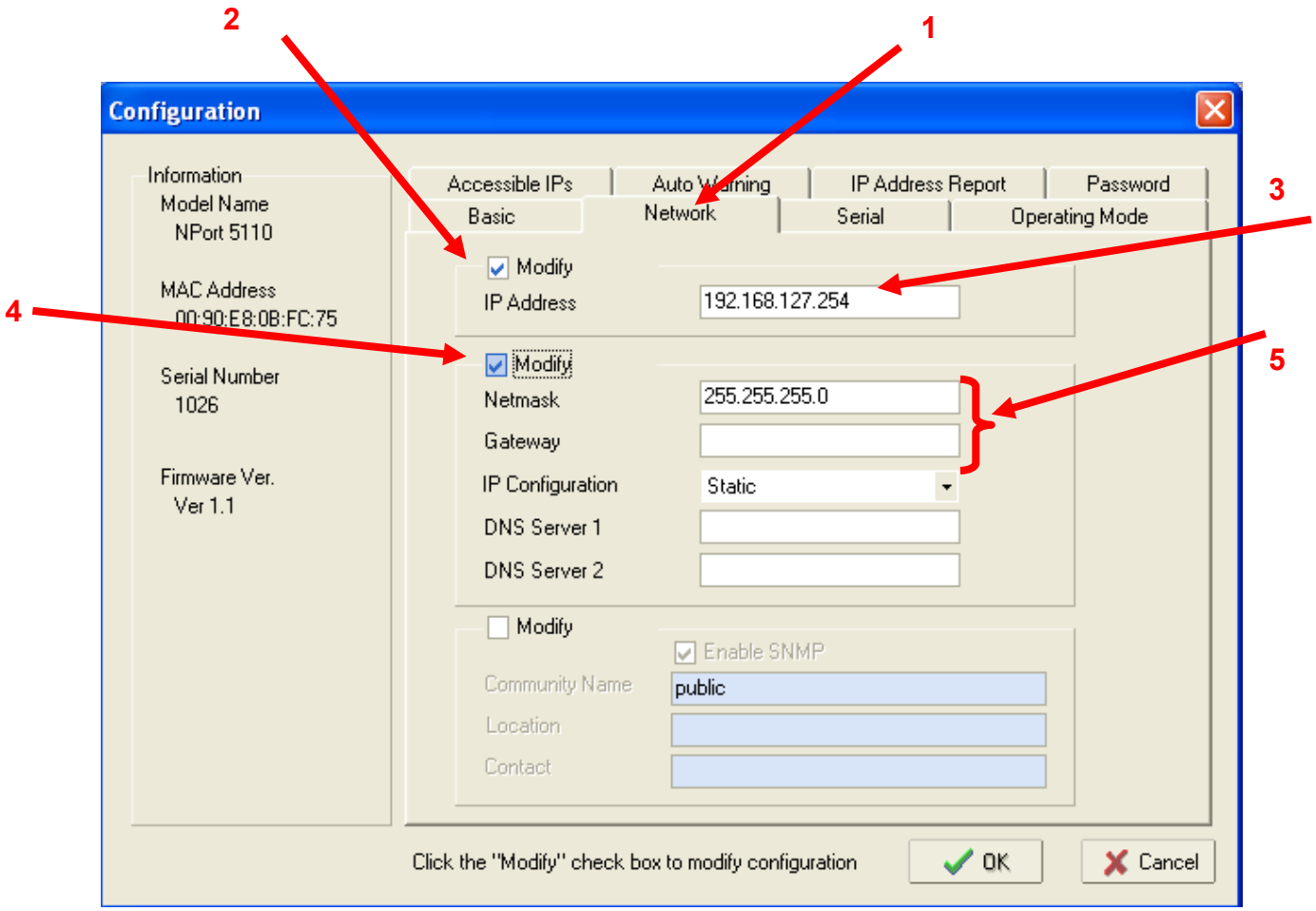
3 The converter initially has default network settings. To change these settings according to your network requirements, double click the line showing the connected converter:



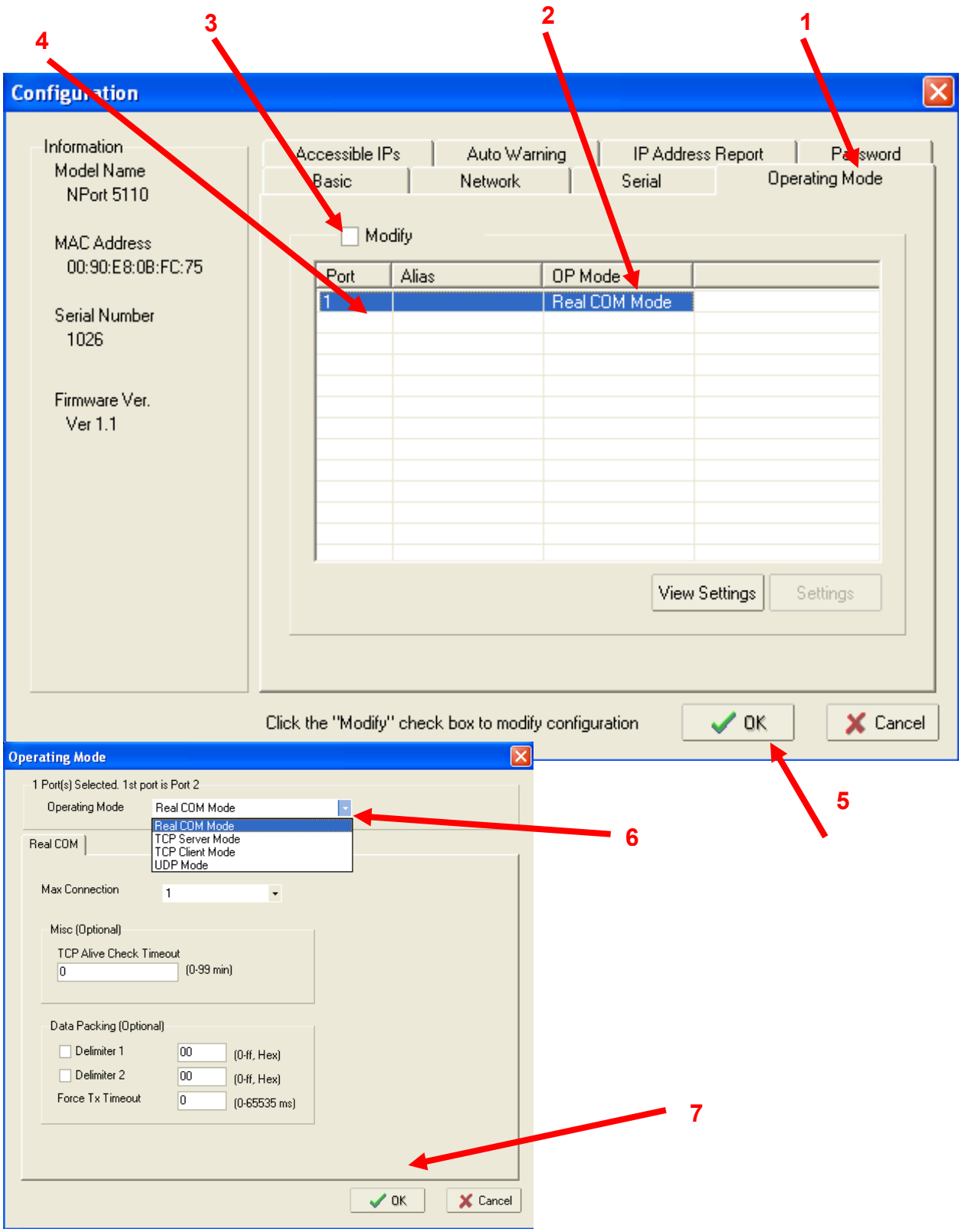
4 Select the Network option (1). Click Modify (2) and enter a free IP address of your LAN network (3). Click Modify (4) and enter the other parameters (5).

Note. The parameters of the LAN network where the converter will be installed can be obtained from your system administrator:

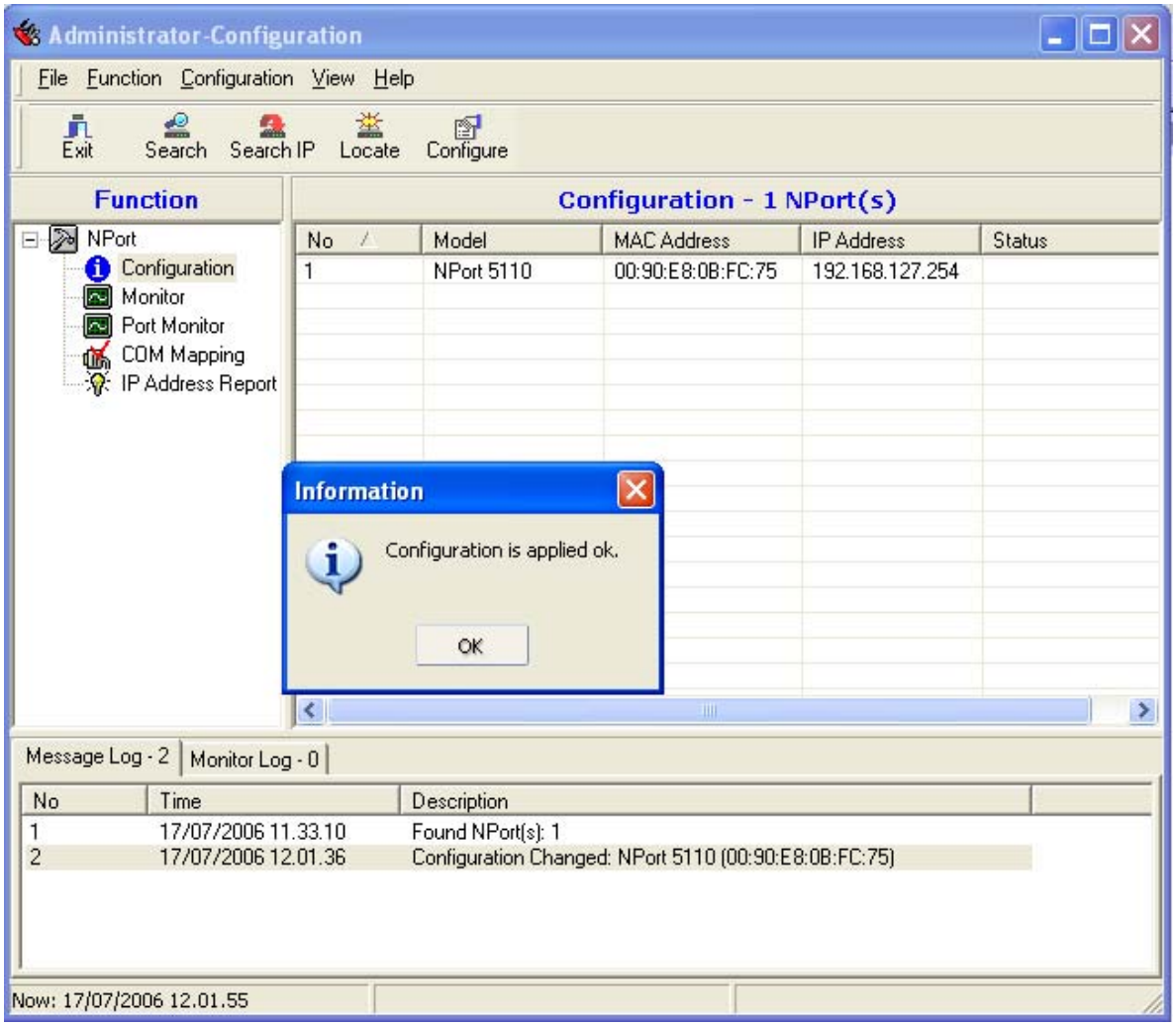
- IP ADDRESS
- NETMASK
- GATEWAY ADDRESS



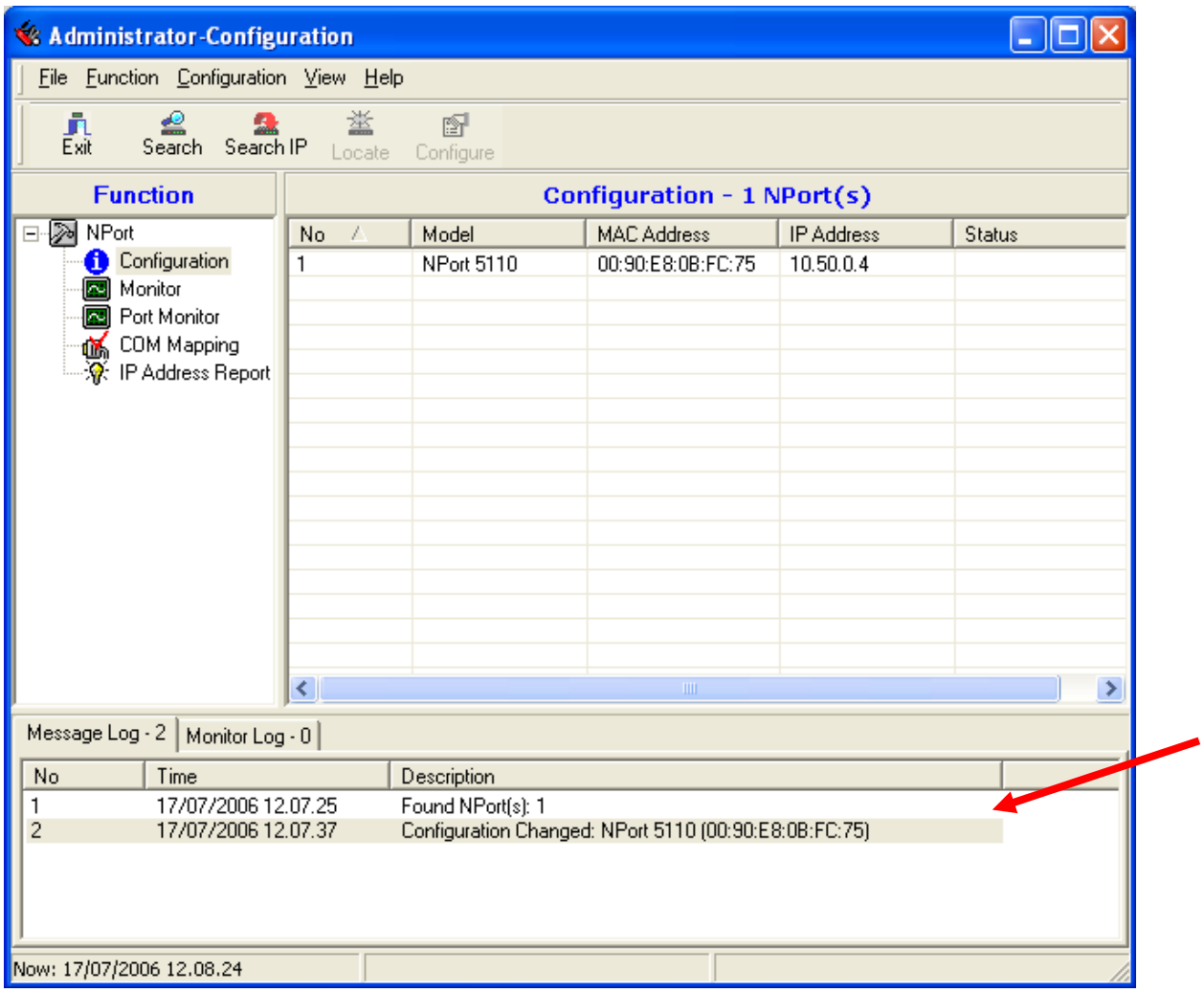
5 Select the OP Mode option (1) and check that this is Real COM Mode (2). If it isn't, select the Modify check box (3), double click the line (4) and, in the dialog box that is displayed, enter the Real COM Mode item (6) in the Operating Mode line. Then confirm with OK (7).
Click OK (5) to close the Configuration window



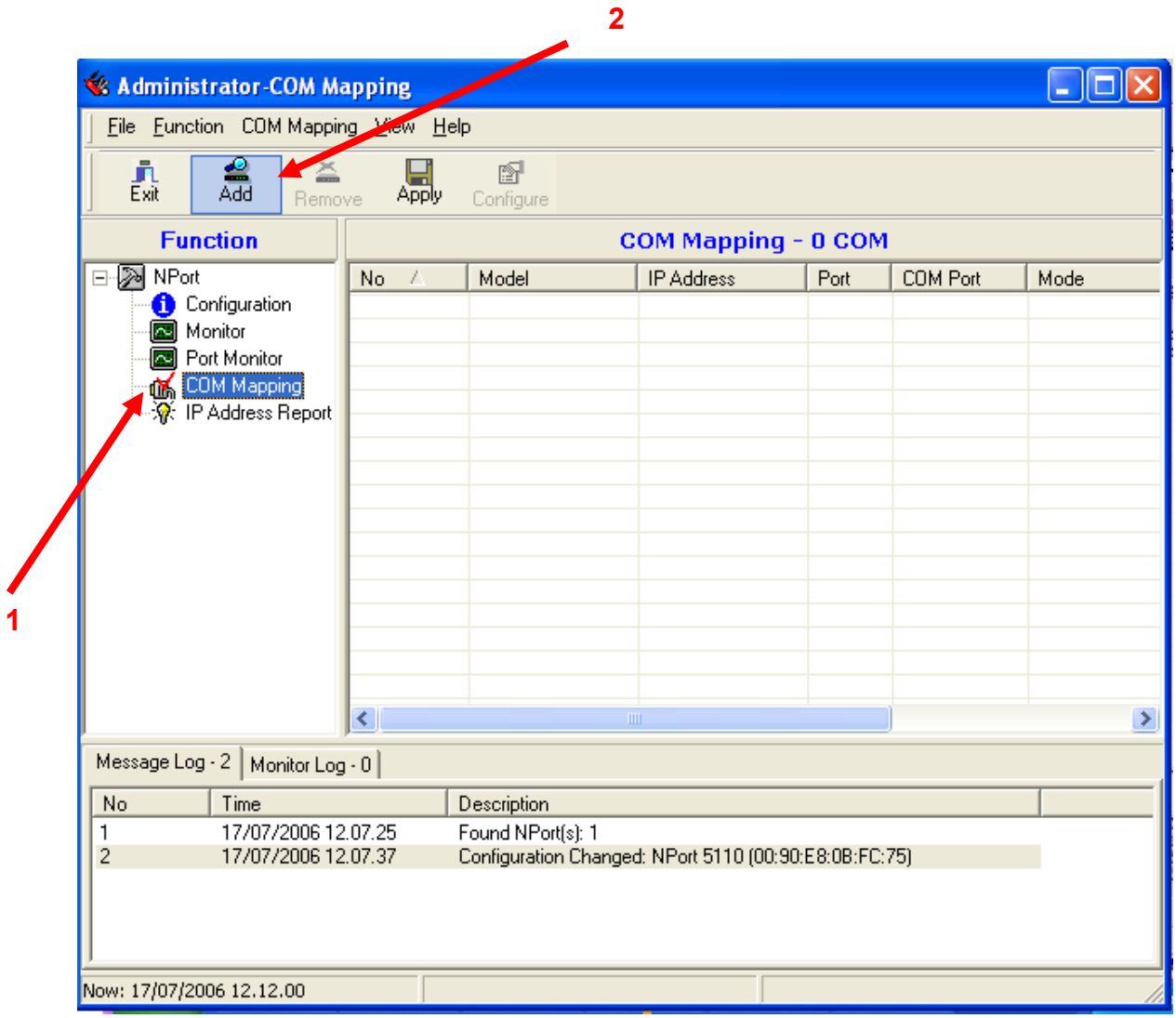
6 A message indicates that the changes have been applied. Click OK.



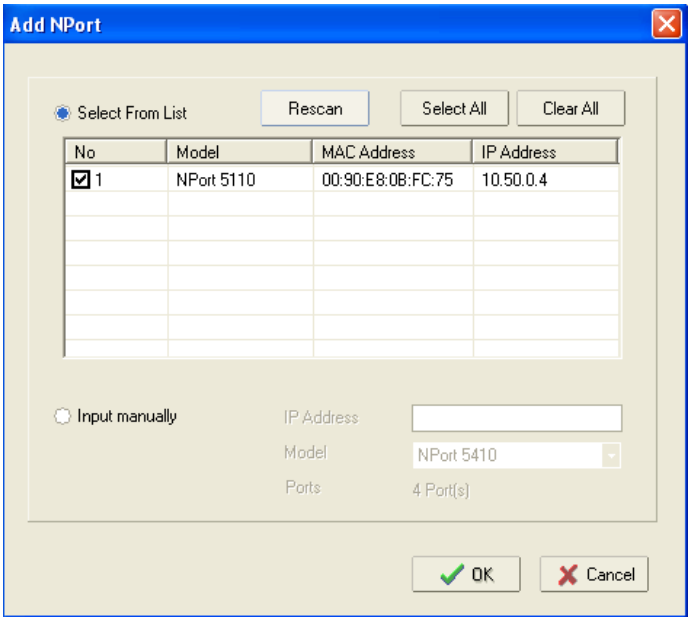
7 The panel at the bottom of the window shows the steps that have been performed since the program was opened:



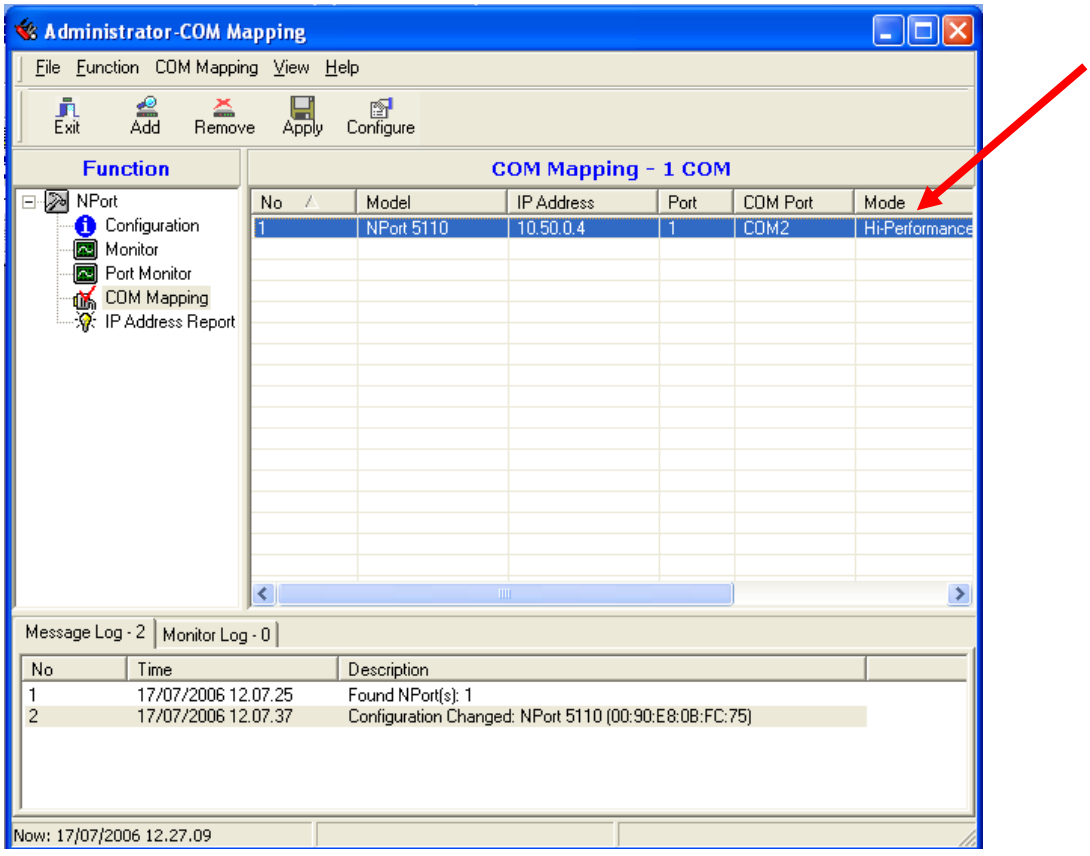
8 Select COM Mapping item (1) and click Add (2):



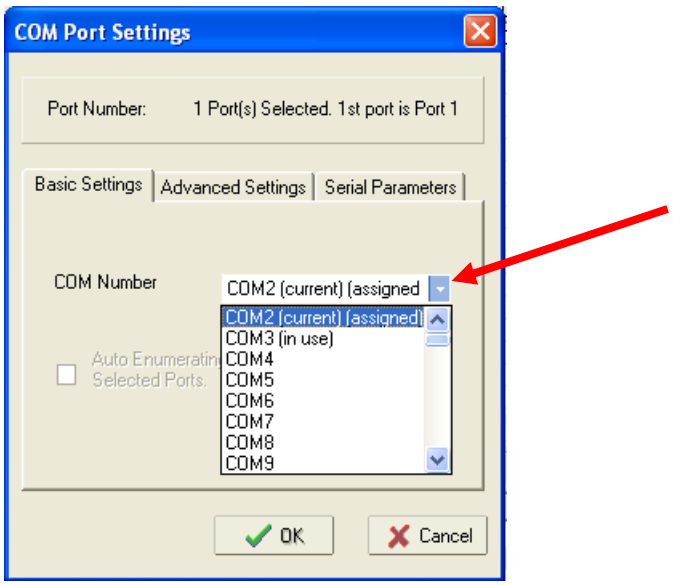
9 Click OK to confirm addition of the converter to the configuration of the serial port associated with the device. If two or more converters are displayed, click the one with the IP Address indicated earlier:



10 The program automatically associates the converter with a free serial port of the monitoring PC. To change the setting, double click on the line of the device added:

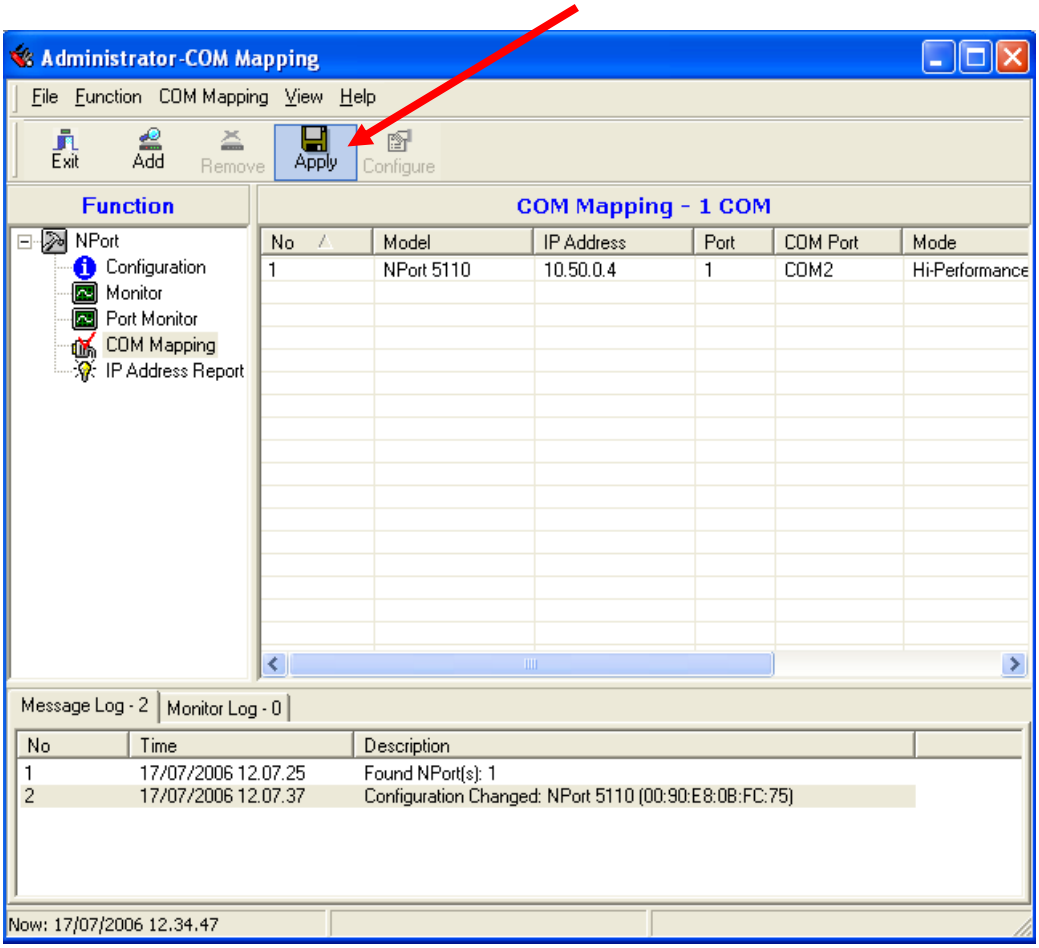


11 The window shown below is displayed. Click the drop down menu and select another free serial port (one without any comment in brackets). Click OK to confirm.

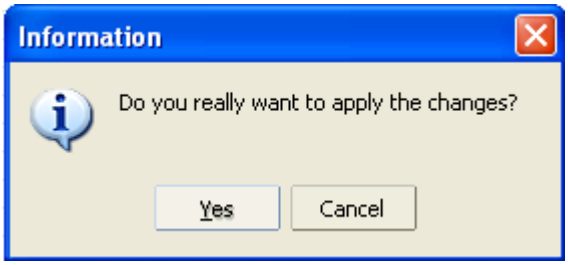


The serial port selected is the one that will be used in the DARDO PC LITE/PC MAP monitoring program for communications between the program and the system.

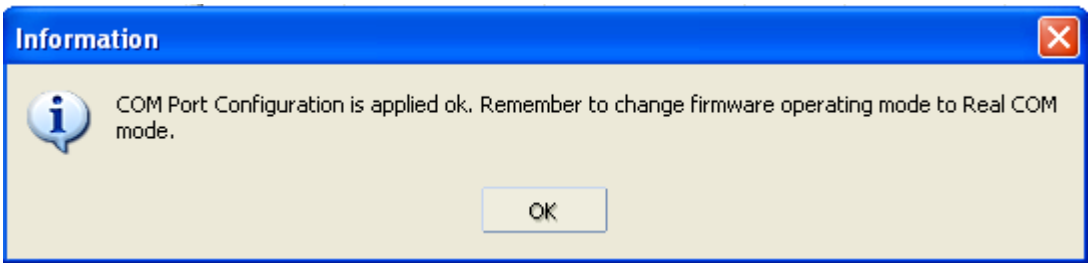
12 Click Apply to save the changes:



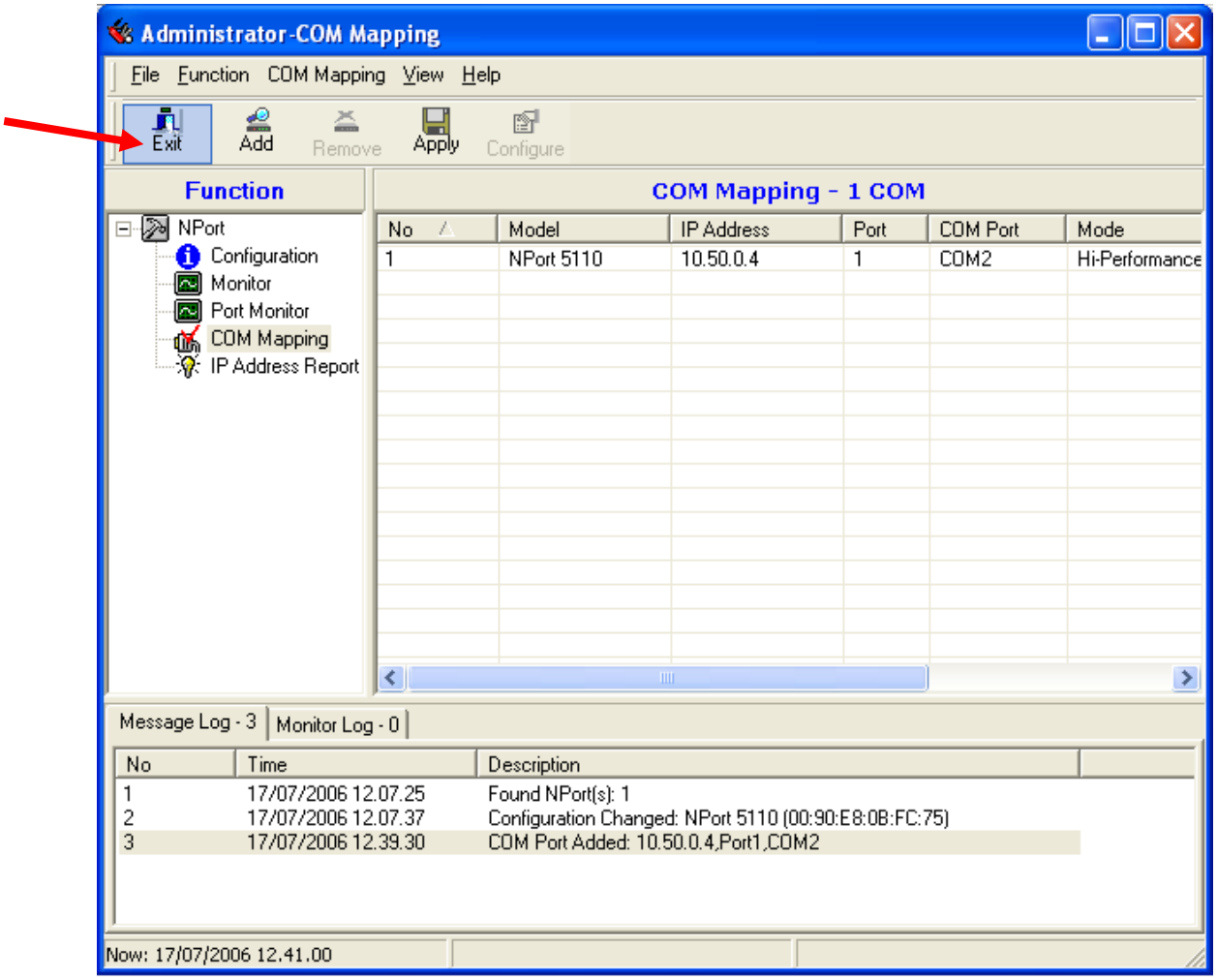
13 Click Yes to confirm:



14 Click OK to confirm:



15 This completes configuration of the converter. To quit the program, click Exit:



Recommended action in the event of functional problems between the RS232/Ethernet Converter and the PC

- Check the compatibility between the NPort Administrator Suite program installed and any Firewall or Antivirus software installed in the PC

- Using the DOS “ping” command, check that the IP address assigned to the RS232/Ethernet converter is not a duplicate address.

- If the RS232/Ethernet Converter cannot be accessed using NPort Administrator Suite, test the following:

    - Check the accessibility of the converter from a PC connected to the HUB/SWITCH to which the converter is connected

    - Check accessibility from the Server to the HUB/SWITCH to which the converter is connected

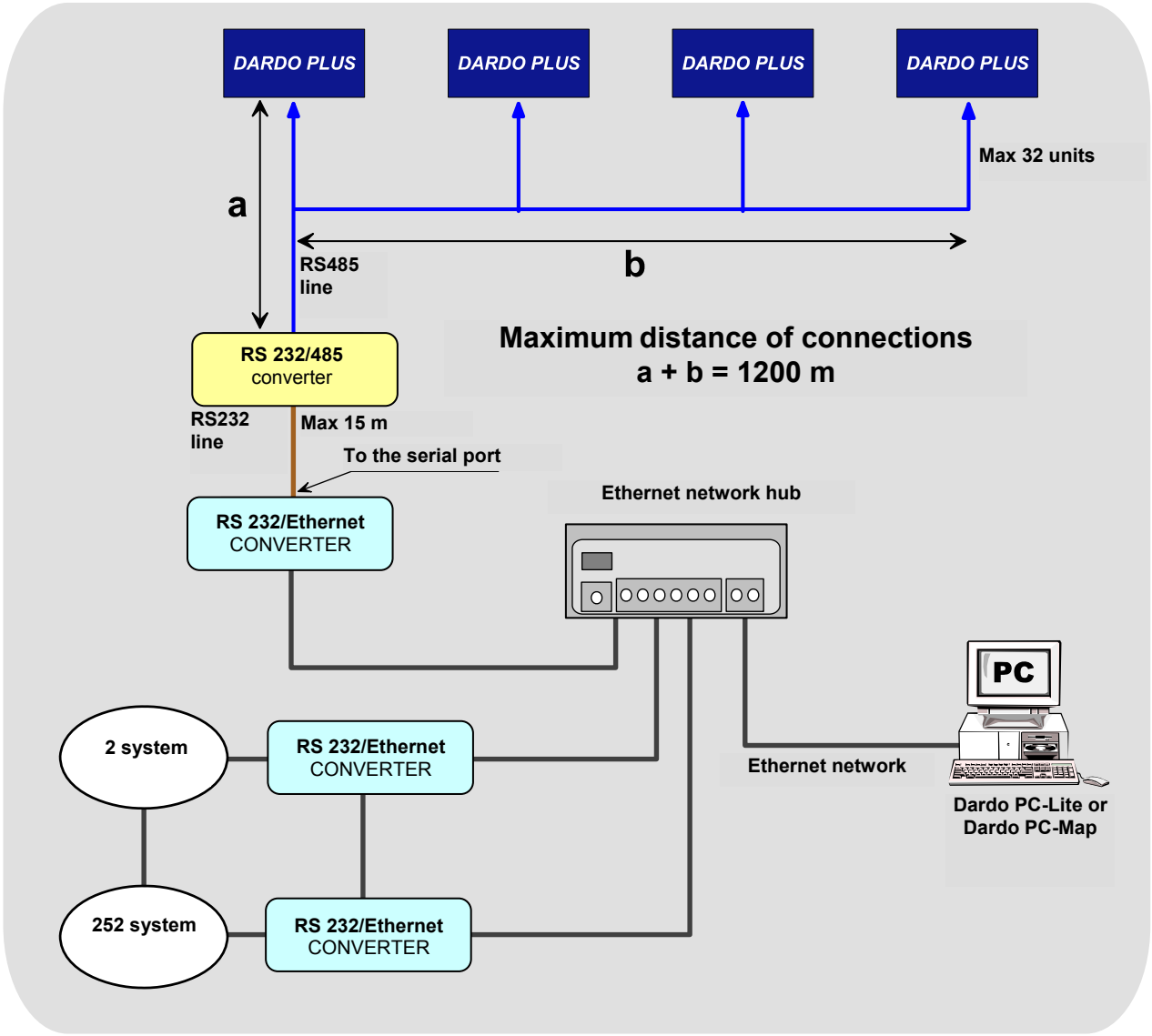
    - If possible, delete the ARP table of the HUB/SWITCH to which the converter is connected or, as a last resort, reset the HUB/SWITCH itself and repeat the accessibility tests

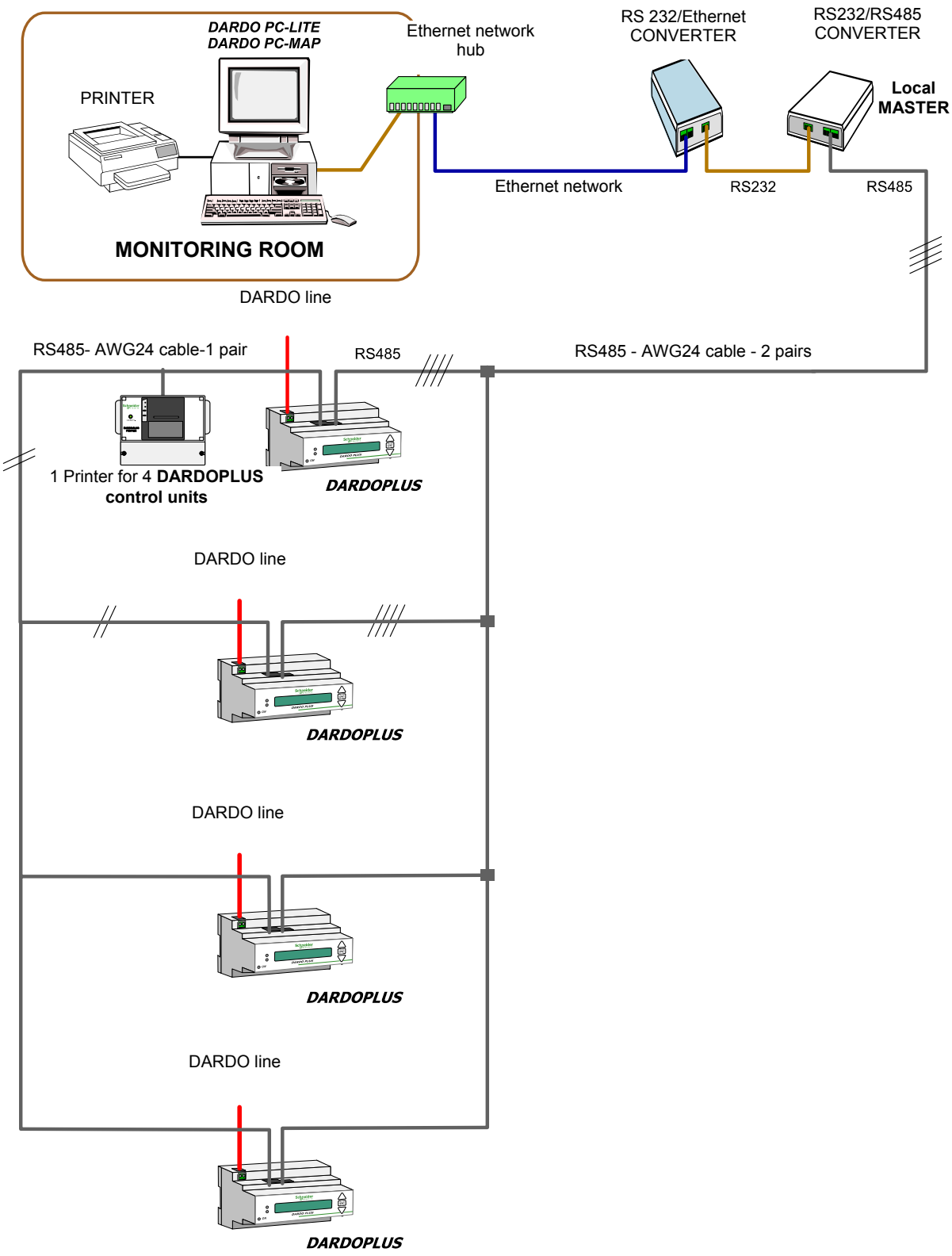
Appendices

Maximum cable distances

Note: The monitoring system may monitor up to 256 emergency lighting systems (less the number of PC serial ports).

Example of monitoring system




DARDO PC-LITE
DARDO PC-MAP
PRINTER
Ethernet network hub
RS 232/Ethernet CONVERTER
RS232/RS485 CONVERTER
Local MASTER
Ethernet network
RS232
RS485
MONITORING ROOM
DARDO line
RS485- AWG24 cable-1 pair
RS485
RS485 - AWG24 cable - 2 pairs
1 Printer for 4 DARDOPLUS control units
DARDOPLUS
DARDO line
DARDOPLUS
DARDO line
DARDOPLUS
DARDO line
DARDOPLUS

Notes

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Introduction

Il est obligatoire de lire cette section avant toute autre documentation et avant d'effectuer n'importe quelle opération sur le produit.

Le bon fonctionnement de l'interface RS232/Ethernet est garanti uniquement si l'interface est utilisée conjointement avec des appareils de secours SCHNEIDER ELECTRIC.

Manuel d'instructions

À qui s'adresse-t-il ?

Ce manuel s'adresse à des installateurs compétents qui sont en mesure d'intervenir en toute sécurité sur des systèmes matériels et logiciels.

Importance du manuel

Le présent manuel d'instructions contient des informations nécessaires à l'installation et à l'utilisation **de l'interface RS232/Ethernet.**

Toute reproduction et transmission à des tiers du présent manuel entier ou partiel sans une autorisation écrite de SCHNEIDER ELECTRIC est interdite.

SCHNEIDER ELECTRIC se réserve le droit d'apporter des modifications sans avis préalable afin d'améliorer ses produits. Par conséquent, les illustrations du manuel pourraient ne pas correspondre parfaitement à l'appareil fourni.

S'assurer que toute correction ou toute mise à jour fournie par le constructeur est toujours insérée et intégrée dans le présent manuel d'instructions.

Conservation du manuel

Le manuel doit être conservé pour qu'il soit possible de le consulter pendant toute la durée de vie de l'appareil ; il doit aussi être accessible pour chaque intervention ou réinstallation de l'appareil en question.

Pictogrammes utilisés

Le manuel d'instructions comprend une série de pictogrammes qui attirent l'attention sur des suggestions, notes, prescriptions et normes concernant l'utilisation correcte de l'application, les conditions de sécurité et l'intégrité physique de l'opérateur.

Les pictogrammes principaux sont indiqués ci-après :

Notes générales :

NOTE OU NORME DE FONCTIONNEMENT GÉNÉRALE

Pictogrammes de prescription (forme rectangulaire) :

OBLIGATION DE COUPER L'ALIMENTATION ÉLECTRIQUE (OUVRIR L'INTERRUPTEUR GÉNÉRAL)

Pictogrammes d'avertissement en cas de danger pour la personne et/ou pour l'appareil (forme triangulaire) :

DANGER DE NATURE GÉNÉRALE POUR LA PERSONNE ET/OU POUR L'APPAREIL

DANGER DE NATURE ÉLECTRIQUE POUR LA PERSONNE ET/OU POUR L'APPAREIL (ÉLECTROCUTION)

Mises en garde

- ✓ Pour toute information technique concernant l'installation, l'utilisation du produit ou en cas de défaillance, s'adresser à SCHNEIDER ELECTRIC.
- ✓ L'installation ou les interventions à effectuer sur l'appareil doivent être confiées à des techniciens qualifiés, conformément aux normes d'installation nationales en vigueur et dans un endroit à l'abri de la poussière et de l'humidité.
- ✓ Prévoir un système de sectionnement en amont de la connexion d'alimentation.
- ✓ **Pour garantir la sécurité des personnes et le bon fonctionnement de l'interface RS232/Ethernet, il est INDISPENSABLE de prévoir une connexion à la terre efficace, conforme aux normes en vigueur.**
- ✓ Avant d'effectuer toute opération d'entretien débrancher l'appareil du secteur.
- ✓ **Le conteneur barré qui est représenté sur l'appareil indique que le produit doit être remis à des centres de collecte autorisés afin d'éliminer correctement le produit en limitant les effets nuisibles à l'environnement et à l'homme. S'adresser au service compétent de la collectivité locale pour obtenir des informations sur les centres de collecte et sur les dispositions de la loi en vigueur.**

ATTENTION :
LE NON-RESPECT DES INSTRUCTIONS D'INSTALLATION ET D'UTILISATION DE L'APPAREIL IMPLIQUE L'ANNULATION DE LA GARANTIE.

Sécurité

- **L'interface RS232/Ethernet doit être installée** dans un endroit à l'abri de la poussière, de l'humidité et des vapeurs agressives.
- Toujours effectuer les interventions d'installation et/ou d'entretien de l'appareil avec **l'alimentation électrique coupée**.
  Il faut donc prévoir un dispositif de sectionnement électrique à la source d'alimentation de l'appareil.
- Utiliser exclusivement l'alimentateur fourni avec l'appareil.

- S'assurer que la connexion à la terre de l'alimentateur est sûre et performante.
- Le bon fonctionnement de l'interface RS232/Ethernet est garanti uniquement si l'interface est utilisée conjointement avec des appareils de secours SCHNEIDER ELECTRIC.

Contenu de l’emballage

Ouvrir l’emballage et vérifier que la fourniture est complète :

(1) **Interface RS232/Ethernet**
(2) Alimentateur 230 Vac/12 Vdc
(3) CD contenant le logiciel de configuration et la documentation du produit
(4) Manuel d’utilisation et d’entretien

Description générale

L'interface RS232/Ethernet permet de transférer sur un support physique de réseau Ethernet le dialogue entre le **PC** de supervision et les systèmes de contrôle et de gestion des réseaux d'éclairage de secours de la série **DARDO**.

Utilisation prévue

Les **interfaces RS232/Ethernet** s'insèrent dans des systèmes de supervision comprenant :

- **PC** positionné à distance avec un système d'exploitation **MS Windows 98** ou supérieur, logiciel de configuration **Nport Administrator Suite** et logiciel de surveillance et de gestion **DARDO PC LITE**.
  N.B. : le logiciel et le manuel correspondant sont fréquemment mis à jour. Le contenu du CD peut subir des modifications.

  La meilleur chose consiste à lire les fichiers **Readme.txt** et **Version.TXT** présents dans le CD. Toutes les mises à jour figurent dans ces fichiers.

- Postes DARDOPLUS.

Chaque système de supervision peut comprendre 256 installations moins le nombre de ports série du PC.
Chaque installation se compose d'une **interface RS232/Ethernet**, d'un **Convertisseur RS232/485**, reliés à un maximum de 32 postes.

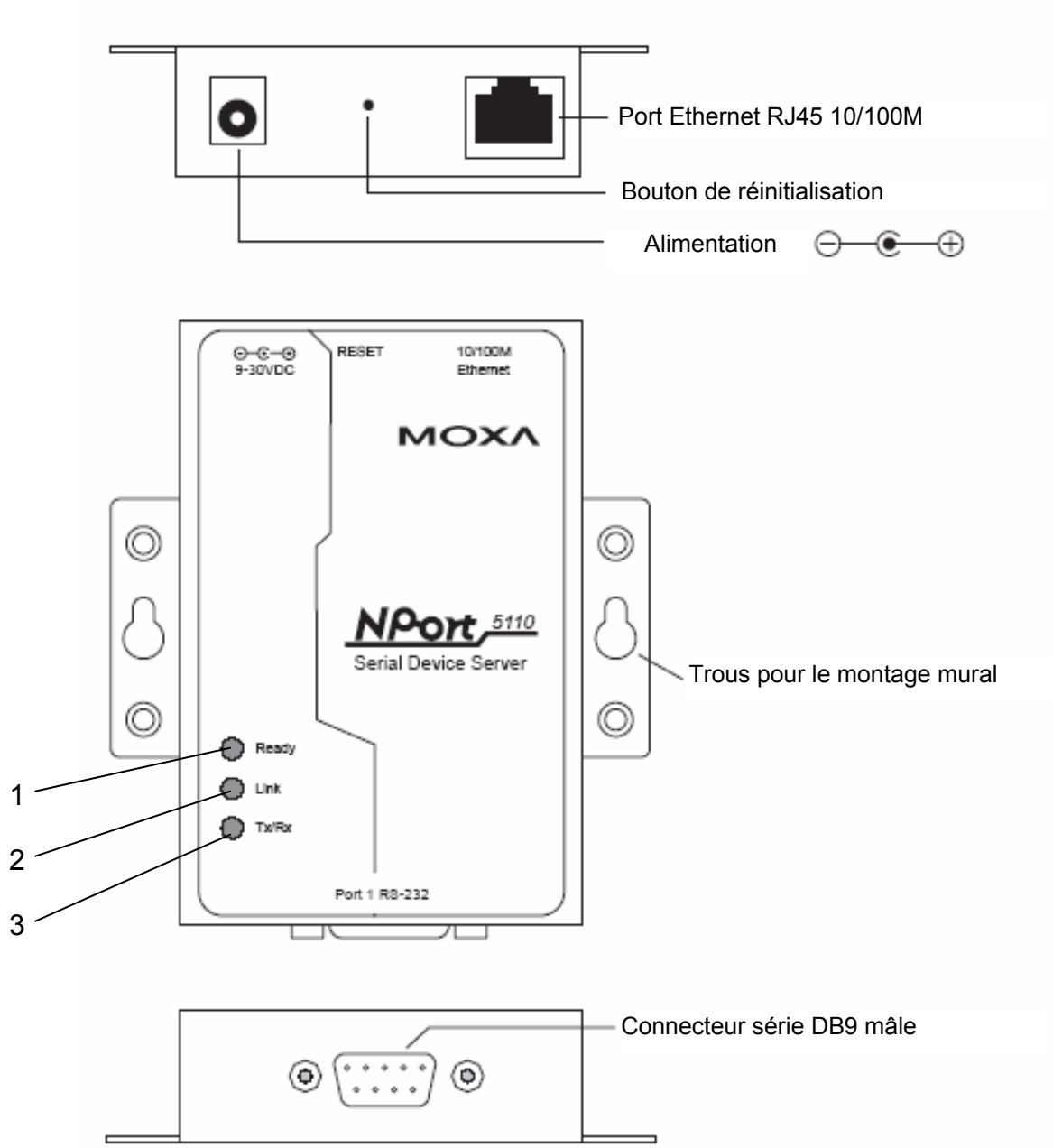
Caractéristiques Techniques

Interface RS 232/Ethernet

Caractéristiques générales

- Alimentation : 9 – 30 Vdc
- Absorption : 200 mA (9V) ; 165 mA (12V)
- Puissance dissipée : 1,8 (9V) : 1,98W (12V)
- Port série : RS232 (9 pôles)
- Port Ethernet : 10/100 Mbps (connecteur RJ-45)
- Câble de connexion RS232 : AWG24*
- Boîtier : Aluminium (1 mm)
- Dimensions (Larg. x Haut. x Prof.) : 75,2 x 80 x 22 mm (avec supports de fixation)
  52 x 80 x 22 mm (sans supports de fixation)
- Température de service : mini 0 °C maxi +55 °C
- Température de stockage : mini 20 °C maxi +85 °C
- Humidité relative (sans condensation) : 5 – 95%
- Poids : 134 g
- Limiteur de surtensions (port série) : 15 kV ESV (décharges électrostatiques)
- Isolement magnétique (port Ethernet) : 1,5 kV
- Protection ligne d'alimentation : 4 kV Burst (EFT), EN 61000 – 4 – 4
  2 kV Surge, EN 61000 – 4 – 4
- Certifications : CE classe A, FCC Classe A, CUL, TÜV

(*) Câble blindé 3 fils, sect. 0,51 mm^2 avec fil rigide ou 0,16 mm^2 avec fil flexible, du type AWG24. Recommandé pour des connexions allant jusqu'à 15 m.



Bouton de réinitialisation

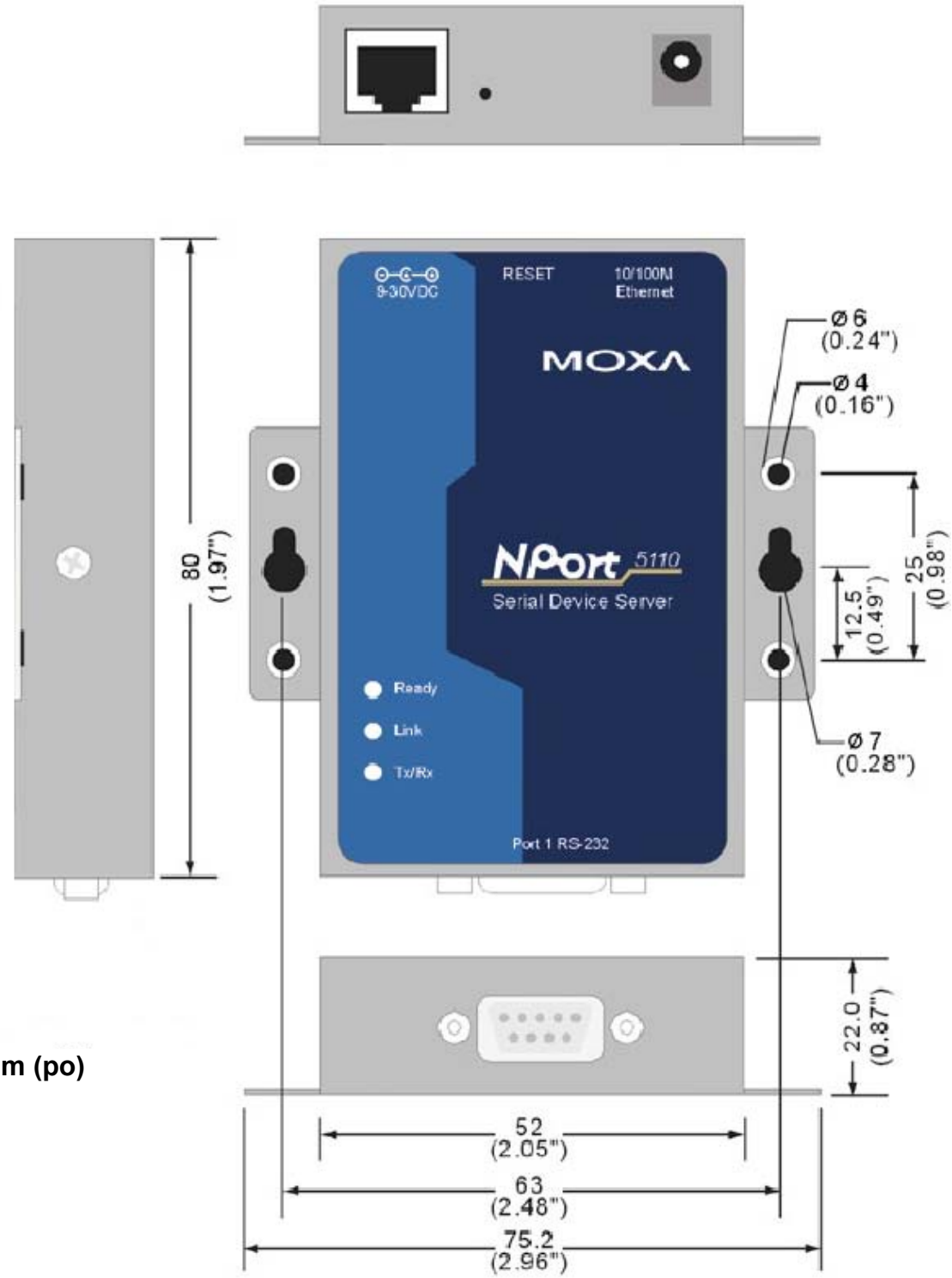
Maintenir enfoncé le bouton de réinitialisation pendant 5 secondes pour rétablir les configurations d'usine initiales de l'interface :

- Utiliser un objet pointu pour enfoncer le bouton.
- Une fois le bouton enfoncé, la LED Ready (1) commence à clignoter.
- La configuration est chargée dès que la LED Ready (1) cesse de clignoter (au bout d'environ 5 secondes).
- Il est alors possible de relâcher le bouton.

Fonctionnement LED

Nom LED	Couleur LED	Fonction LED
Ready (1)	Rouge	Allumée fixe : L'interface est alimentée et en cours d'initialisation. Clignotante : Indique un conflit de l'adresse IP ou bien le serveur de réseau ne répond pas correctement.
	Verte	Allumée fixe : L'interface est alimentée et fonctionne normalement. Clignotante : L'interface a été localisée par le logiciel NPort Administrator.
	Éteinte	L'interface n'est pas alimentée ou il y a une défaillance d'alimentation.
Link (2)	Orange	Connexion Ethernet 10 Mbs.
	Verte	Connexion Ethernet 100 Mbs.
	Éteinte	Câble Ethernet déconnecté ou en court-circuit.
Tx / Rx (3)	Orange	Le port série est en train de recevoir des données.
	Verte	Le port série est en train de transmettre des données.
	Éteinte	Aucune donnée n'est transmise ni reçue via le port série.

Caractéristiques mécaniques



Unité = mm (po)

Alimentateur pour interface RS232/Ethernet

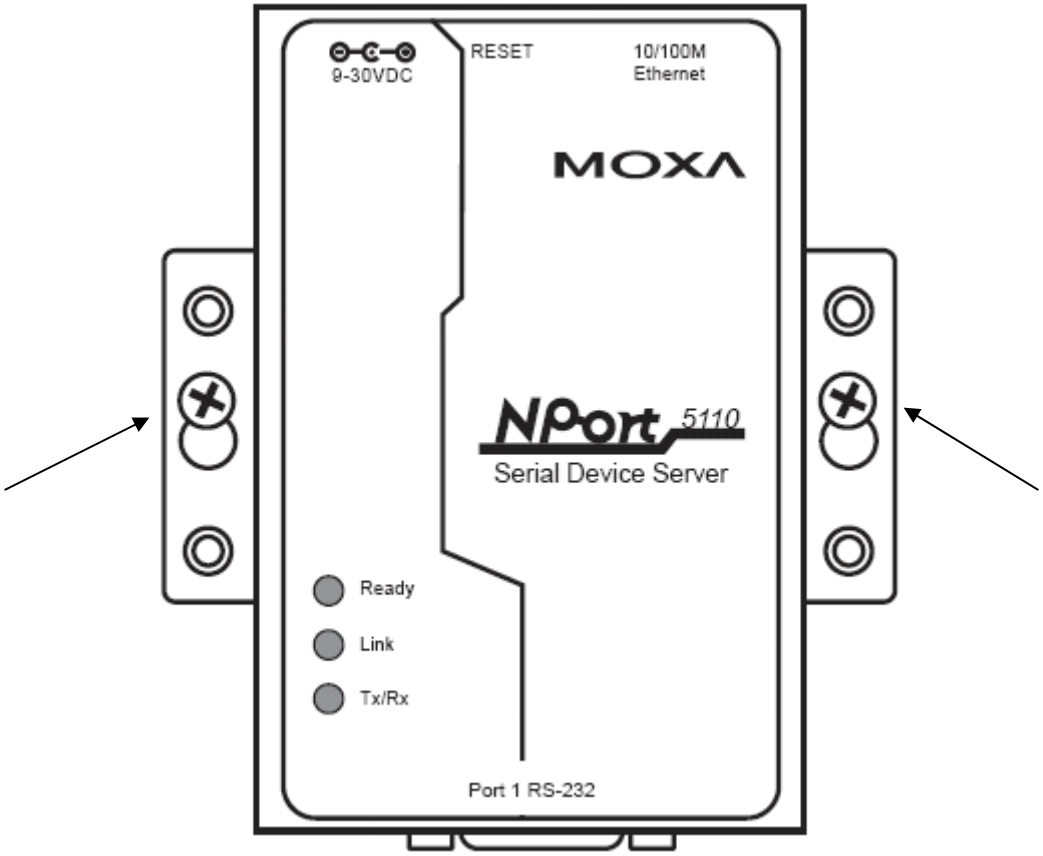
Caractéristiques générales

- Alimentation : 230 Vac 50 Hz, 49 mA
- Sortie : 12 Vdc 400 mA
- Puissance dissipée : 6,5 W
- Dimensions (Larg. x Haut. x Prof.) : 51 x 63 x 41 mm
- Température de service : mini 0 °C maxi +55 °C
- Température de stockage : mini 20 °C maxi +85 °C
- Humidité relative (sans condensation) : 5 – 95%
- Poids : 317,5 g
- Longueur câble : 1818 mm
- Certifications : CE, TÜV

Installation

Montage de l'interface

Il est possible d'effectuer un montage mural de l'interface à l'aide des trous pratiqués sur les ailettes latérales.



Configuration système requise

Pour installer l'interface RS232/Ethernet, il faut que le système utilisé remplisse les conditions minimales requises :

Système d'exploitation :	Windows 98, 2000, NT 4 0, XP (+sp2)
Processeur :	À partir de Pentium 200MHz
Mémoire :	64 Mo Ram
Disque dur :	2 Go
Carte graphique :	résolution 1024 x 768
Lecteur de CD-ROM	
Souris	
Clavier Windows 98 compatible	
1 port série	
Carte de réseau Ethernet 10/100 Mbps	

Informations pour l'installation

Pour installer l'**Interface RS232/Ethernet**, effectuer dans l'ordre les opérations ci-après :

1) Relier l'interface à un réseau Ethernet (voir paragraphe Connexions du réseau Ethernet)

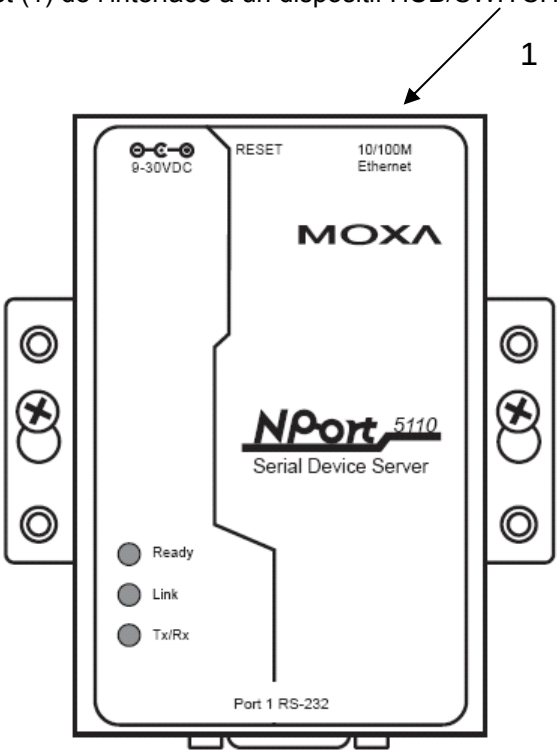
2) Relier l'interface au port **RS232** du **Convertisseur DARDO RS232/485**
(voir paragraphe Connexions du câble série).
Consulter l'exemple de connexion avec les systèmes de supervision SCHNEIDER ELECTRIC
(voir sect. Annexes)

3) Alimenter l'interface à l'aide de l'alimentateur fourni (voir paragraphe Connexions de l'alimentateur).

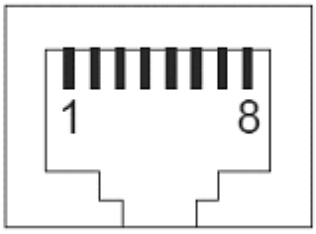
4) Configurer l'interface (voir Section 5) après avoir installé le logiciel de configuration contenu dans le CD fourni.

Connexions du réseau Ethernet

Relier le port 10/100 M Ethernet (1) de l'interface à un dispositif HUB/SWITCH de réseau via un câble **RJ45**.



Port 10/100 M Ethernet de l'interface

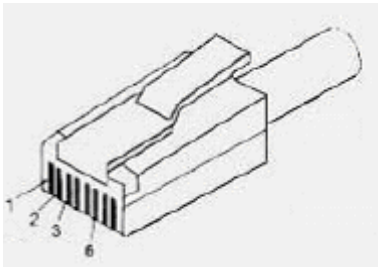


N. BROCHE	Signaux Ethernet
1	Tx+
2	Tx-
3	Rx+
6	Rx-

Câble RJ45

Utiliser un câble droit RJ45 :

Broche N.1	Transmission données +
Broche N.2	Transmission données -
Broche N.3	Réception données +
Broche N.4	Réservée
Broche N.5	Réservée
Broche N.6	Réception données -
Broche N.7	Réservée
Broche N.8	Réservée



Connexions :
C = côté **Interface RS232/Ethernet**
H = côté HUB/SWITCH réseau Ethernet

ATTENTION :

UTILISER UN CÂBLE UTP (UNSHIELDED TWISTED PAIR) AVEC DES PAIRES TORSADÉES NON BLINDÉES, DE CATÉGORIE 5, ADAPTÉ AU RÉSEAU ETHERNET UTILISÉ.

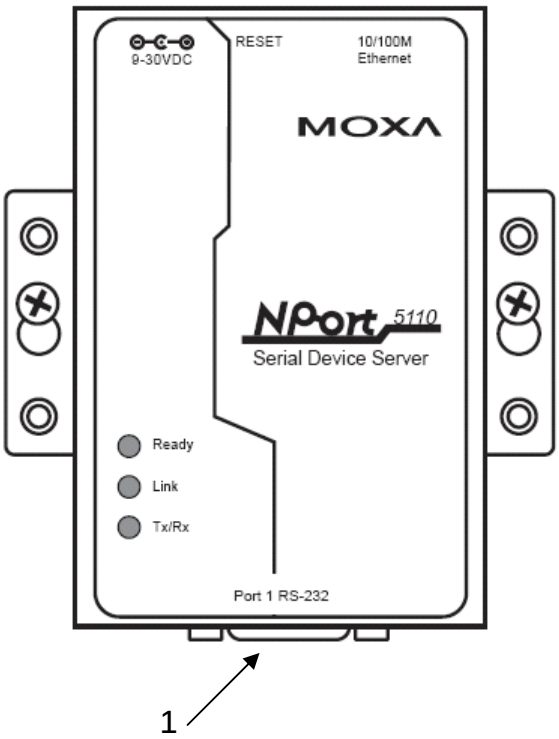
VÉRIFIER QUE L'HUB/SWITCH UTILISÉ A BIEN DES PORTS 10/100 MBPS AUTOSENSING.

CONTRÔLER LA PRÉSENCE ÉVENTUELLE DE FILTRAGES SUR LES PORTS D'ACCÈS DANS LA CONFIGURATION DE L'HUB/SWITCH (PAR EXEMPLE LA CONFIGURATION « PORT SECURITY »).

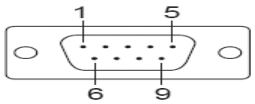
VÉRIFIER S'IL EXISTE DES EMPÊCHEMENTS AU PROTOCOLE TCP/IP SUR LES APPAREILS DU RÉSEAU LAN (PAR EXEMPLE DES CONFIGURATIONS DU TYPE « ACCESS CONTROL LISTS »).

Connexions du câble série

Relier le port série RS232 (1) de l'**Interface RS232/Ethernet** au port RS232 d'un **Convertisseur DARDO RS232/485**, relié à son tour à un système de supervision SCHNEIDER ELECTRIC (voir sect. ANNEXES)



Port RS232 de l'interface



N. BROCHE	Signaux RS232 utilisés

Câble série

Utiliser un câble série broche-à-broche, blindé à 3 fils (du type AWG24 : sect. 0,51 mm^2 avec fil rigide ou bien 0,16 mm^2 avec fil flexible). Les connecteurs situés aux deux extrémités du câble sont du type DB9 femelle :

Connexion des BROCHES relatives aux connecteurs DB9 du câble série.

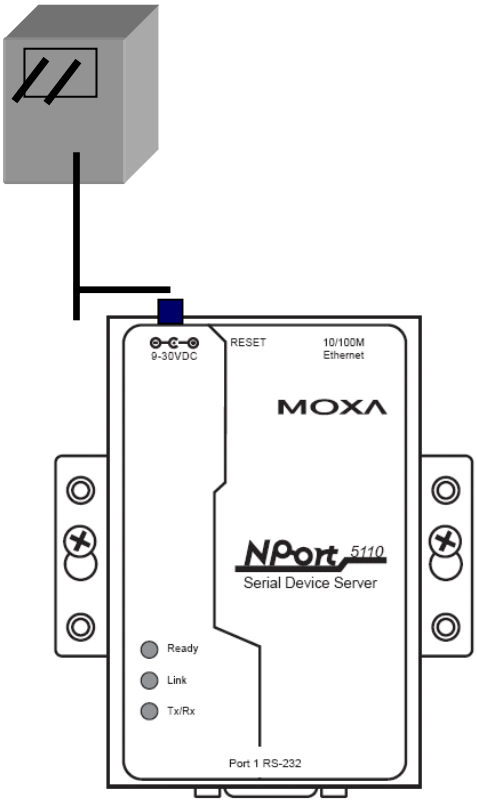
Côté interface RS 232/Ethernet	**2**	———	**2**	**Côté convertisseur DARDO RS232/RS485**
	3	———	**3**	
	5	———	**5**	

ATTENTION :

LA LONGUEUR DU CÂBLE SÉRIE NE DOIT PAS DÉPASSER 15 MÈTRES.

Connexions de l'alimentateur

Relier l'alimentateur fourni à l'**Interface RS232/Ethernet** :



Relier l'interface au réseau d'alimentation 230 Vac 50 Hz

Configuration de l'interface RS 232/Ethernet

Pour pouvoir utiliser l'**Interface RS232/Ethernet**, il faut d'abord la configurer. Pour cela, effectuer dans l'ordre les opérations décrites ci-après.

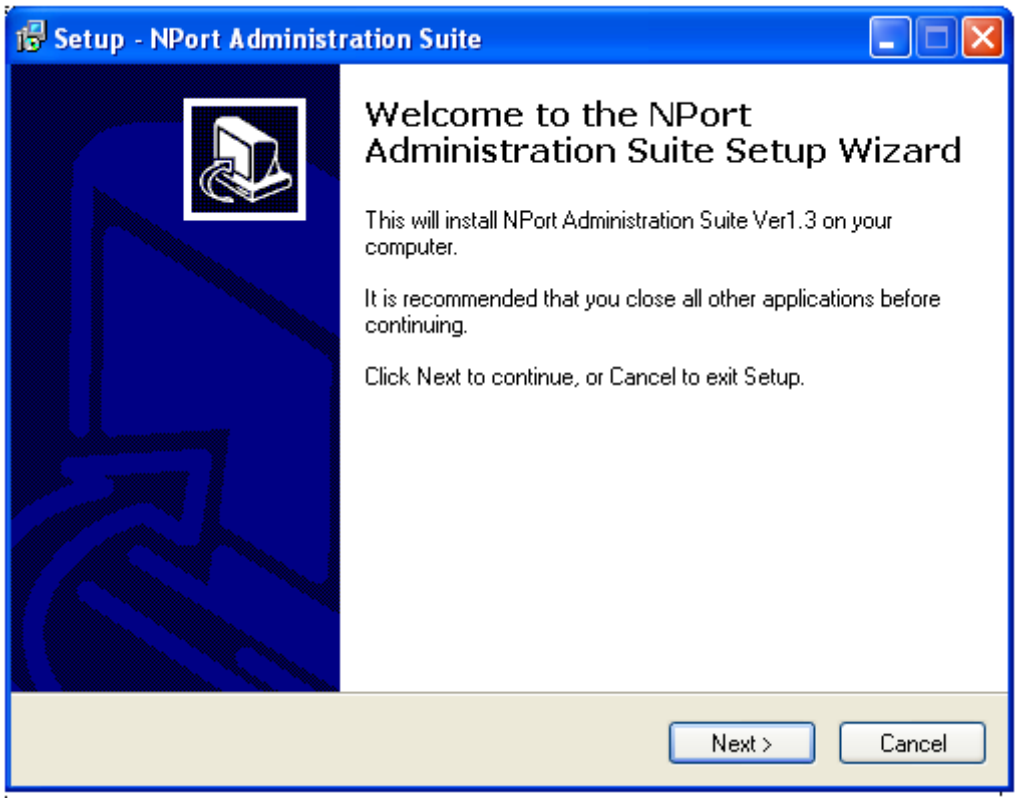
Installation du programme de configuration

Installer le programme de configuration sur le **PC** de supervision :

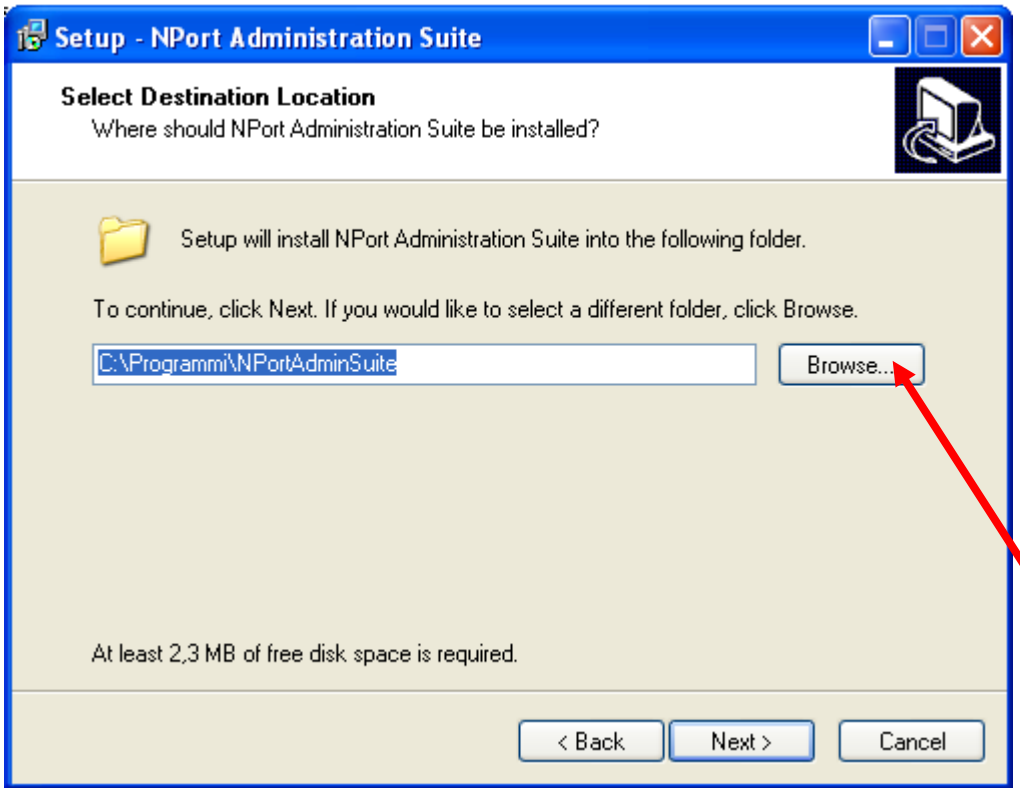
1 Introduire le CD fourni dans le lecteur CD-ROM du PC et avec le programme « Gestion ressources » entrer dans le dossier du CD : **\NPort 5110\Software\Windows**. Lancer le fichier **setup.exe**

ATTENTION :

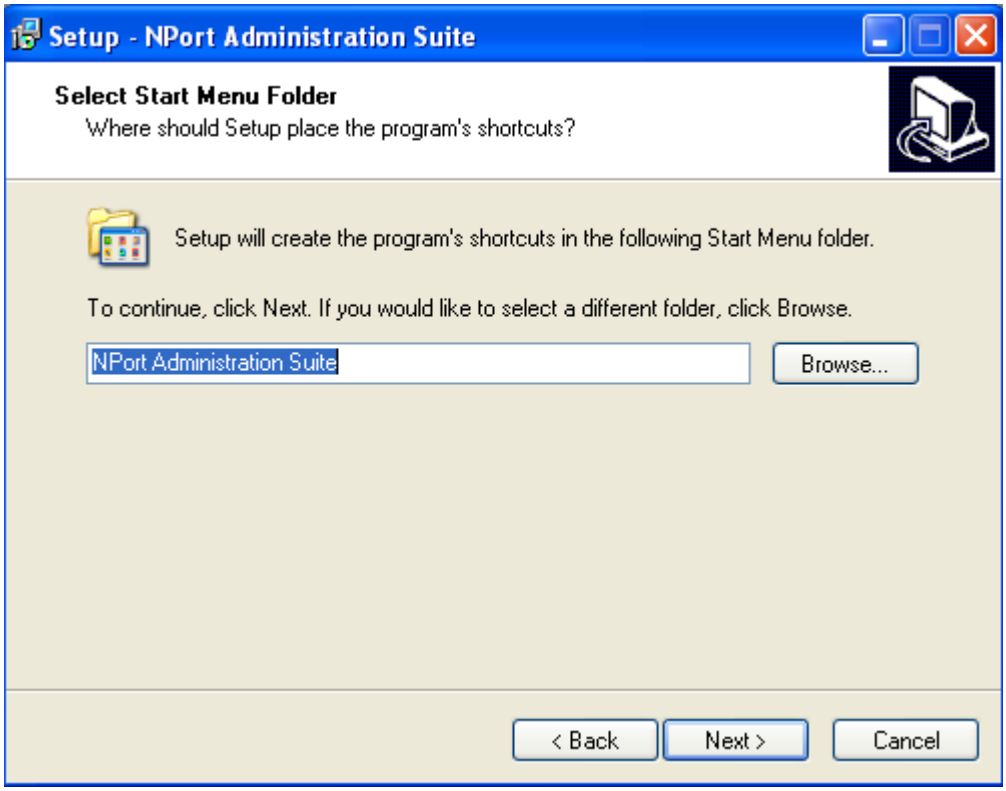
LE LOGICIEL ET LE MANUEL CORRESPONDANT SONT FRÉQUEMMENT MIS À JOUR ; LE CONTENU DU CD ANNEXE PEUT SUBIR DES MODIFICATIONS.
LES PAGES-ÉCRANS PEUVENT DIFFÉRER DE CELLES QUI SONT MONTRÉES CI-APRÈS, MAIS LA PROCÉDURE RESTE LA MÊME.
IL EST RECOMMANDÉ DE LIRE LES FICHIERS **README.TXT** ET **VERSION.TXT** CONTENUS DANS LE CD : TOUTES LES MISES À JOUR SE TROUVENT DANS CES FICHIERS.



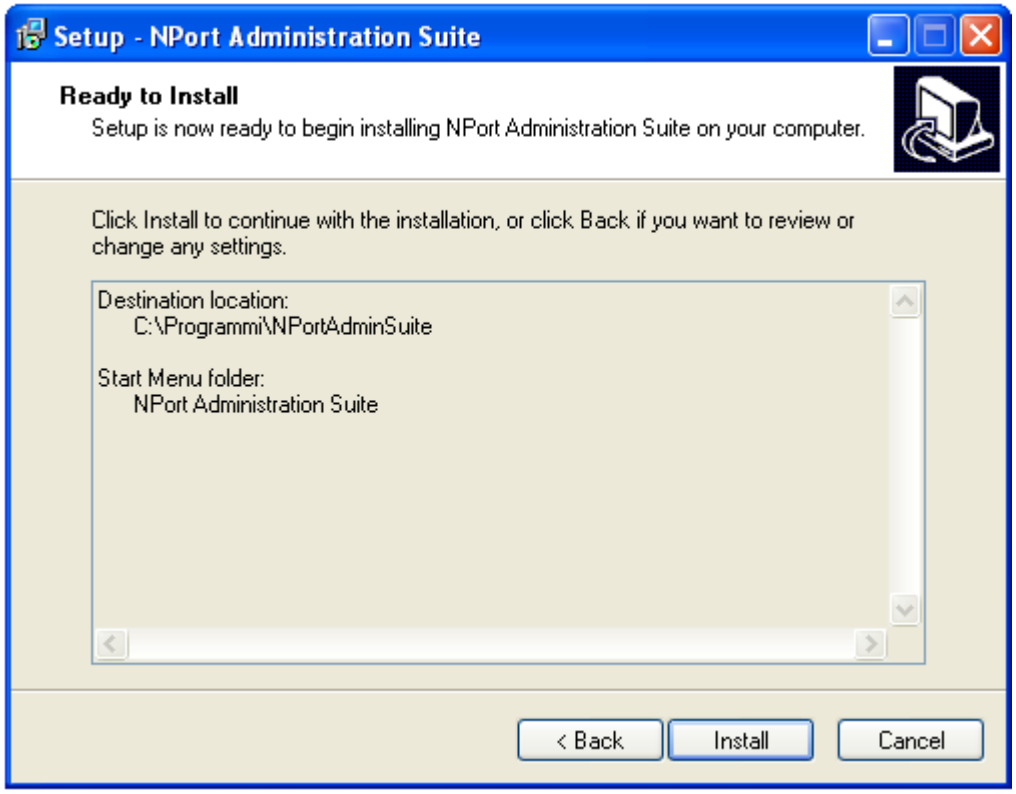
2 Cliquer sur **Next**.



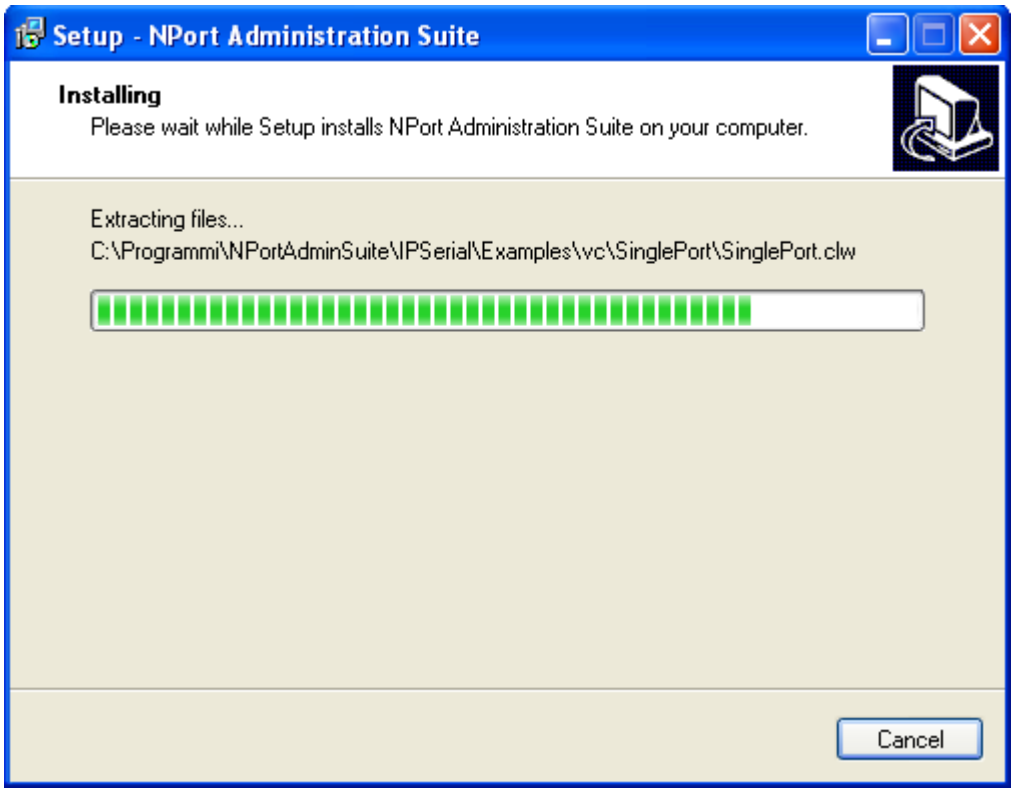
3 Cliquer sur **Next**. Pour modifier le répertoire de destination, presser le bouton (1) et, dans la fenêtre qui se superpose, sélectionner le répertoire souhaité.



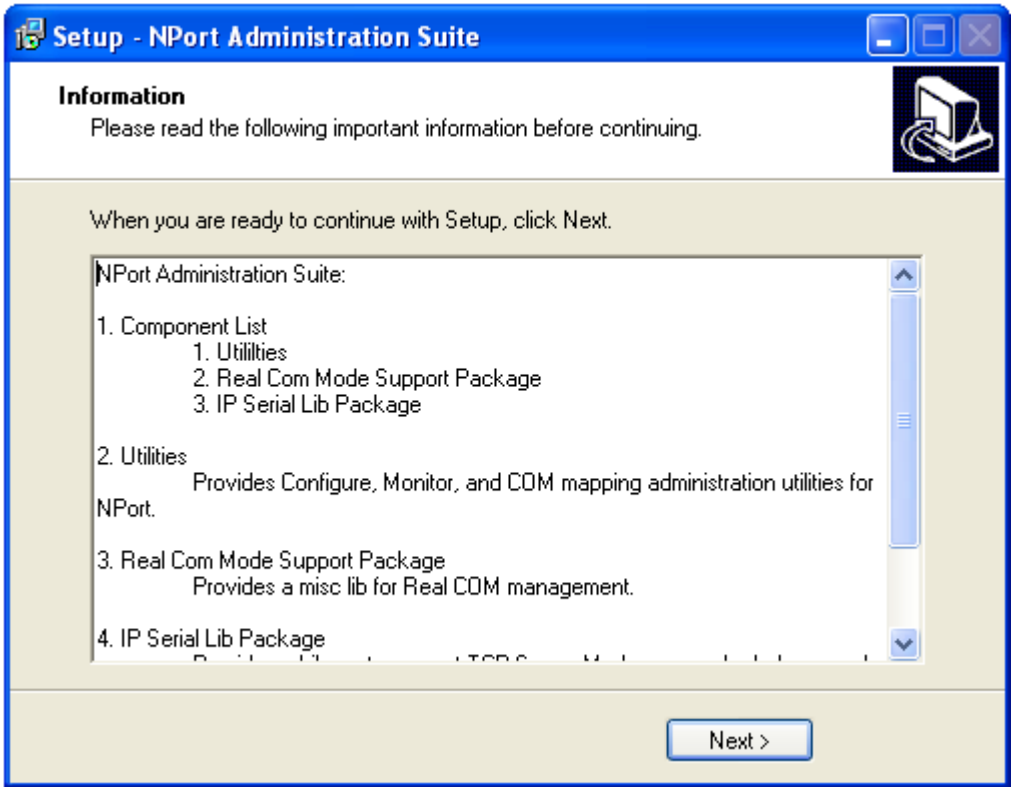
4 Cliquer sur **Next**.



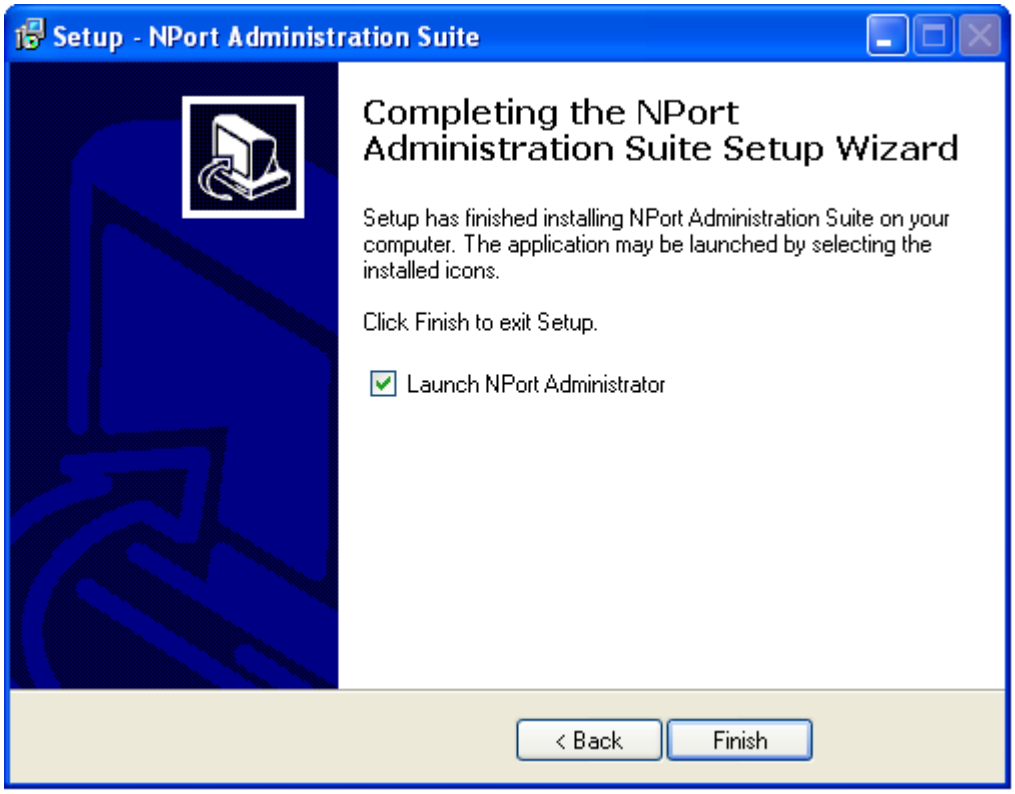
5 Cliquer sur **Install**.



6 La fenêtre indique le déroulement de l'installation.



7 Cliquer sur **Next**.

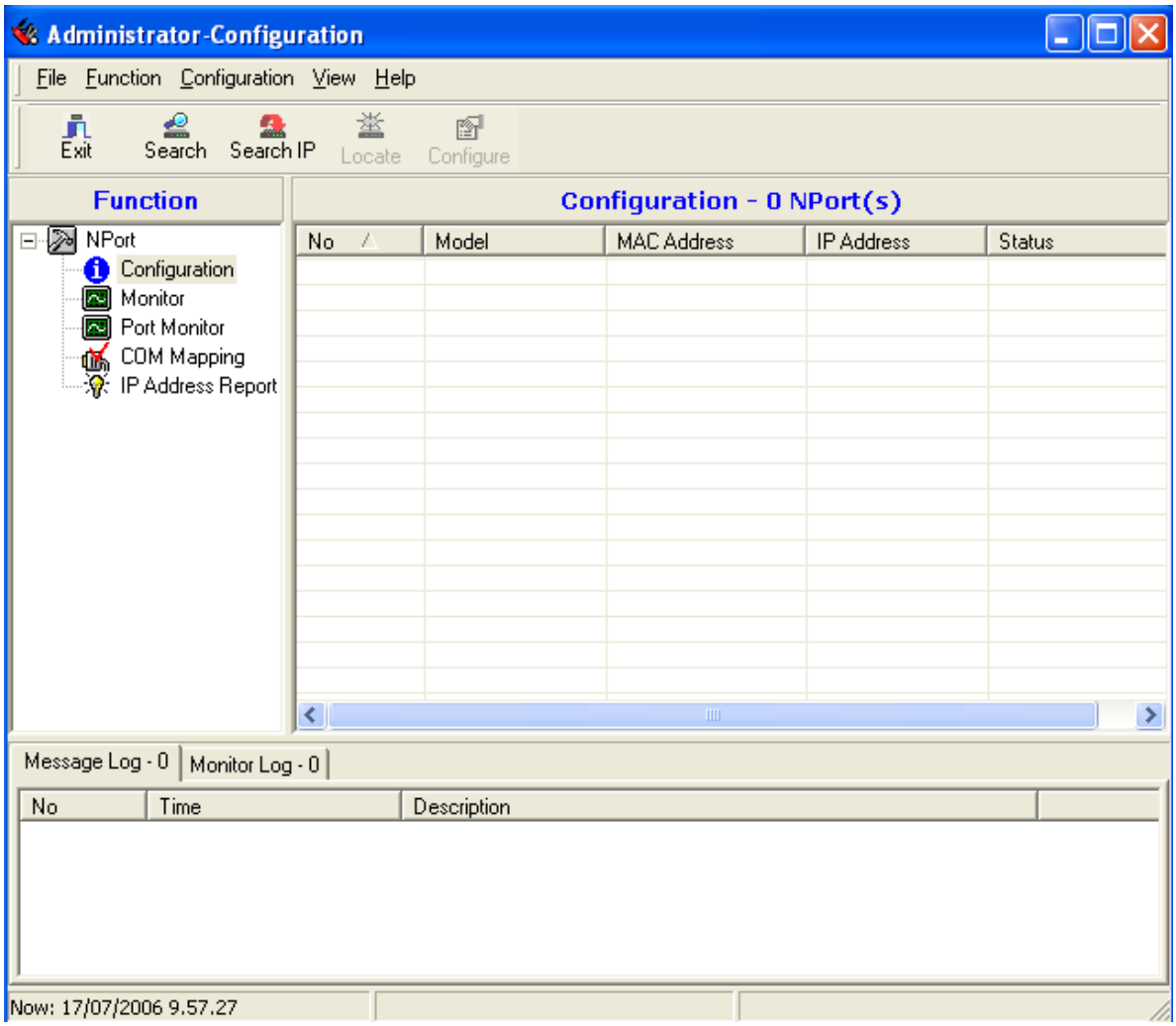


8 **Cliquer sur Finish** pour terminer l'installation et lancer le programme de configuration.

Configuration

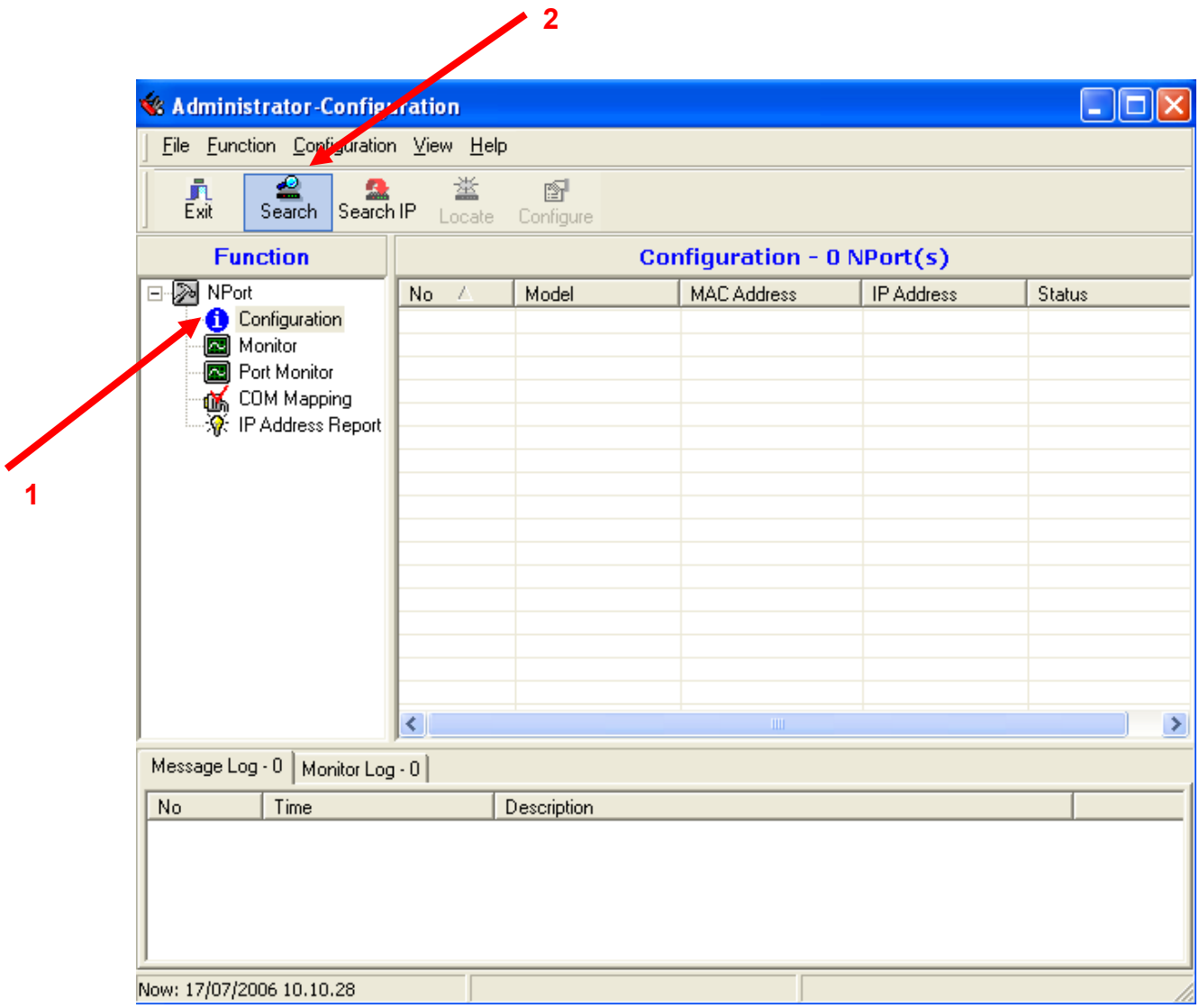
Le programme de configuration démarre automatiquement après l'installation (selon la procédure indiquée au paragraphe précédent). Pour lancer le programme à un autre moment, cliquer sur : **Start => Programmes => NPort Administration Suite => NPort Administrator**.

Après le démarrage du programme, la page-écran initiale suivante s'affiche :

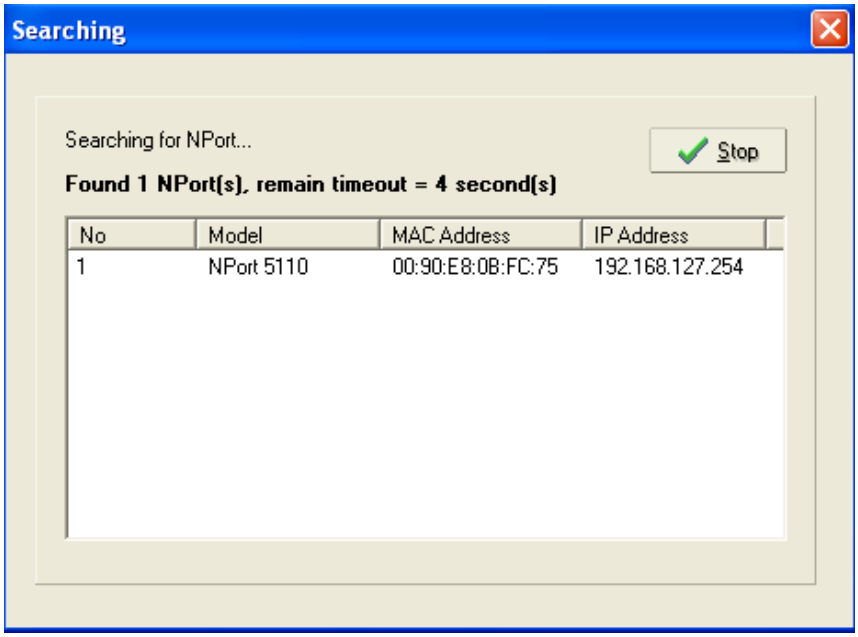


Il est nécessaire d'avoir déjà installé l'interface selon les indications de la section d'Installation pour pouvoir effectuer la configuration.
Suivre la procédure ci-après à l'intérieur du programme :

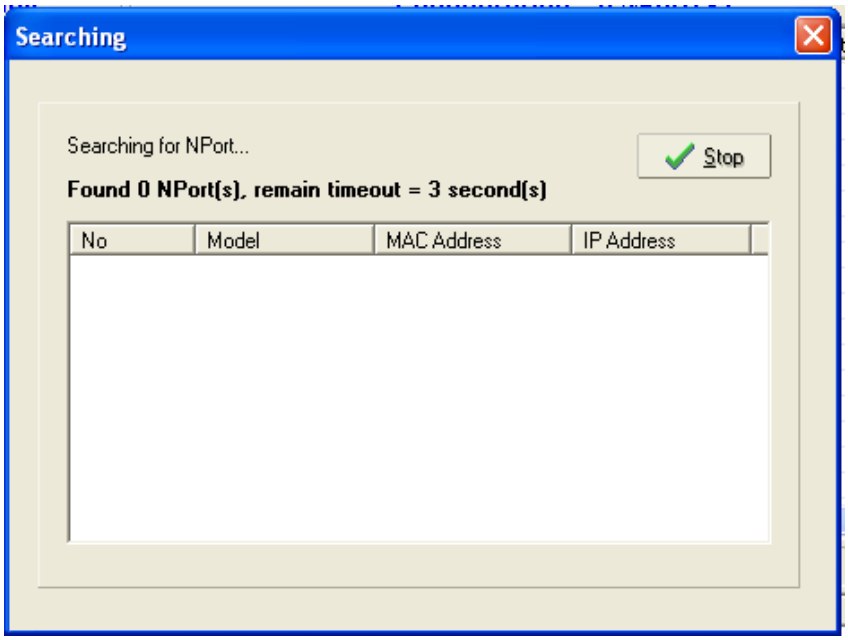
1 Sélectionner Configuration (1) et cliquer sur Search (2):



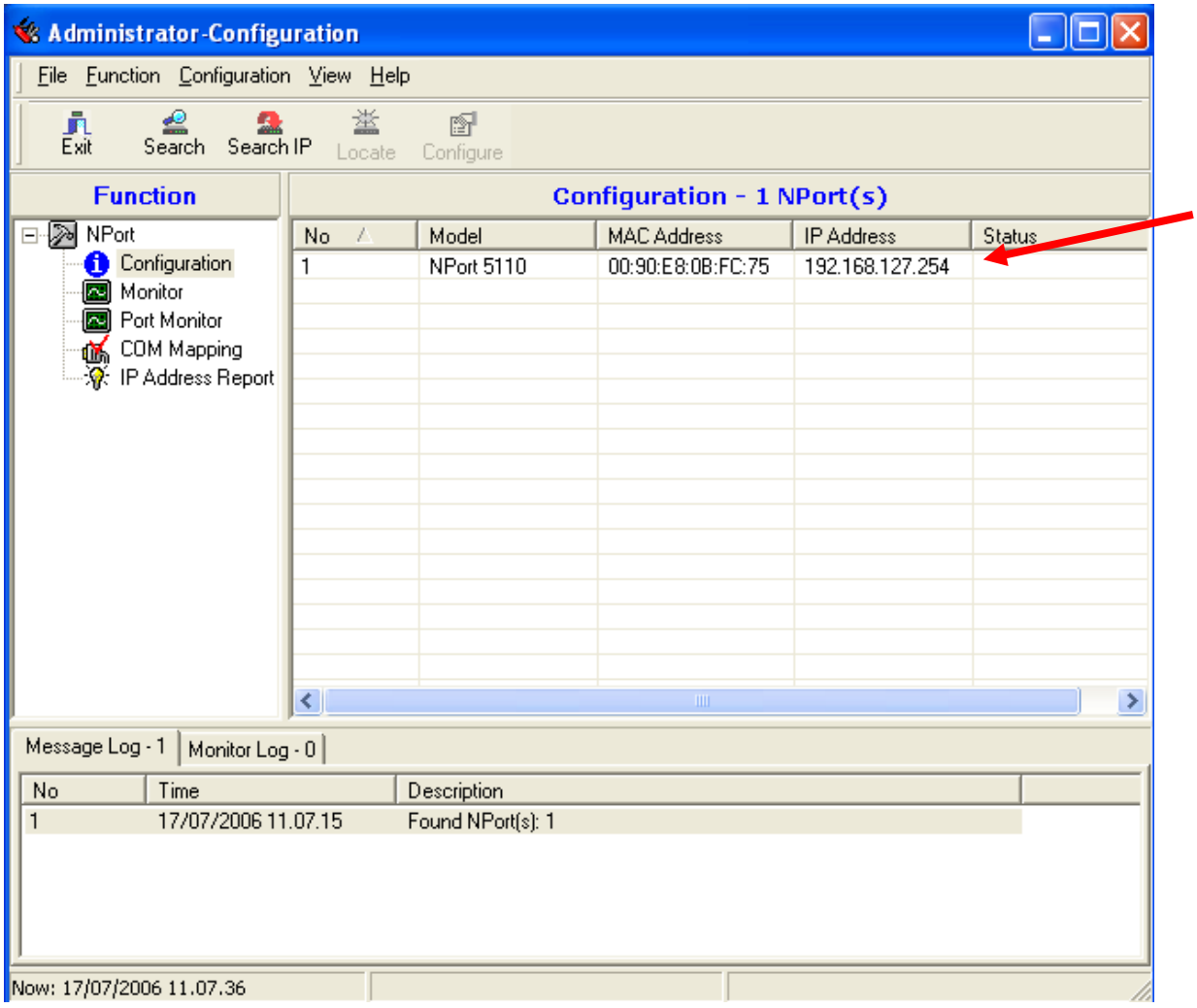
La fenêtre ci-après s'affiche pendant quelques secondes, indiquant la recherche et l'identification de l'interface reliée au réseau Ethernet :



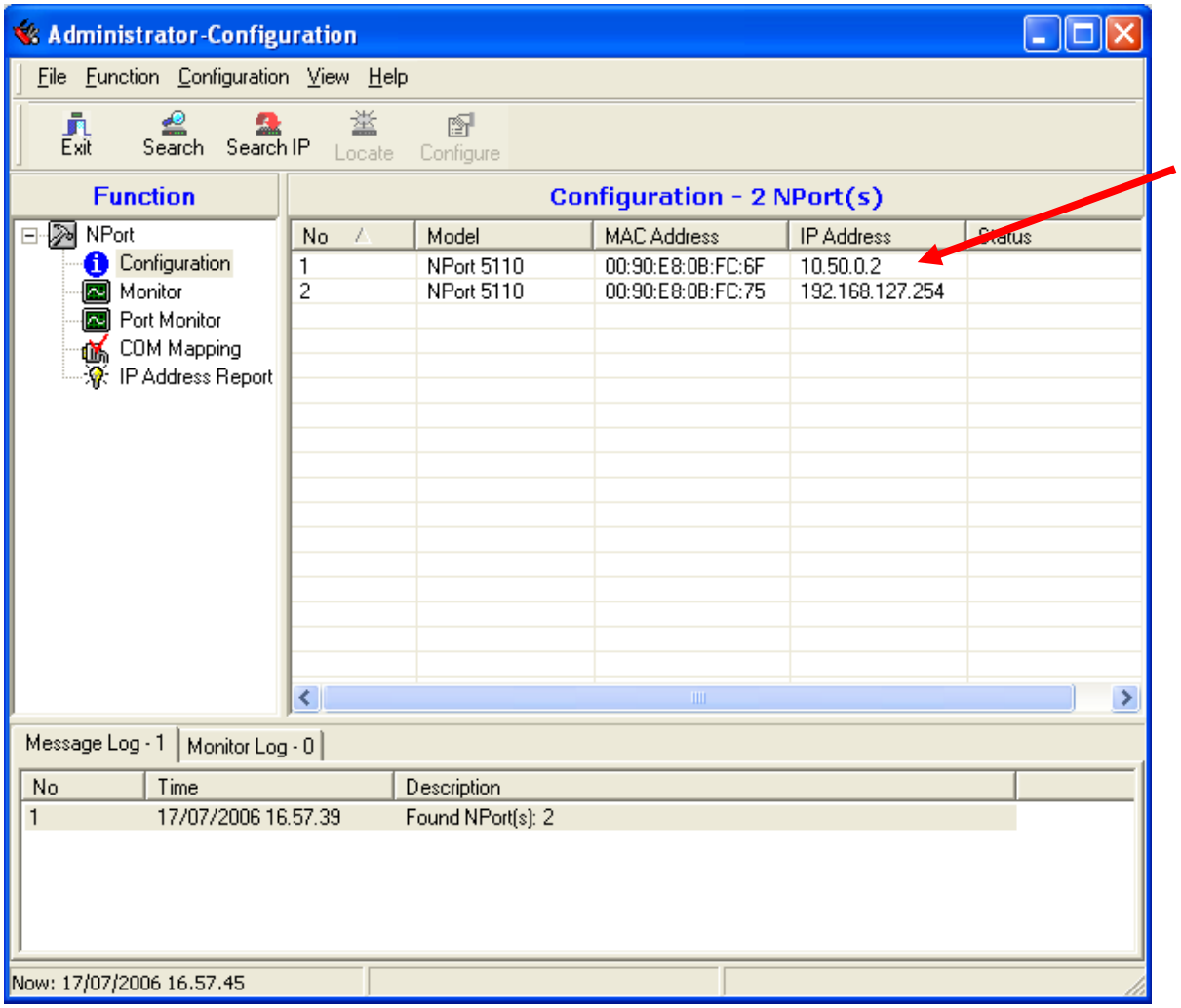
Si l'interface n'est pas identifiée à cause d'un manque d'alimentation ou de connexion au réseau Ethernet, la fenêtre reste vide :



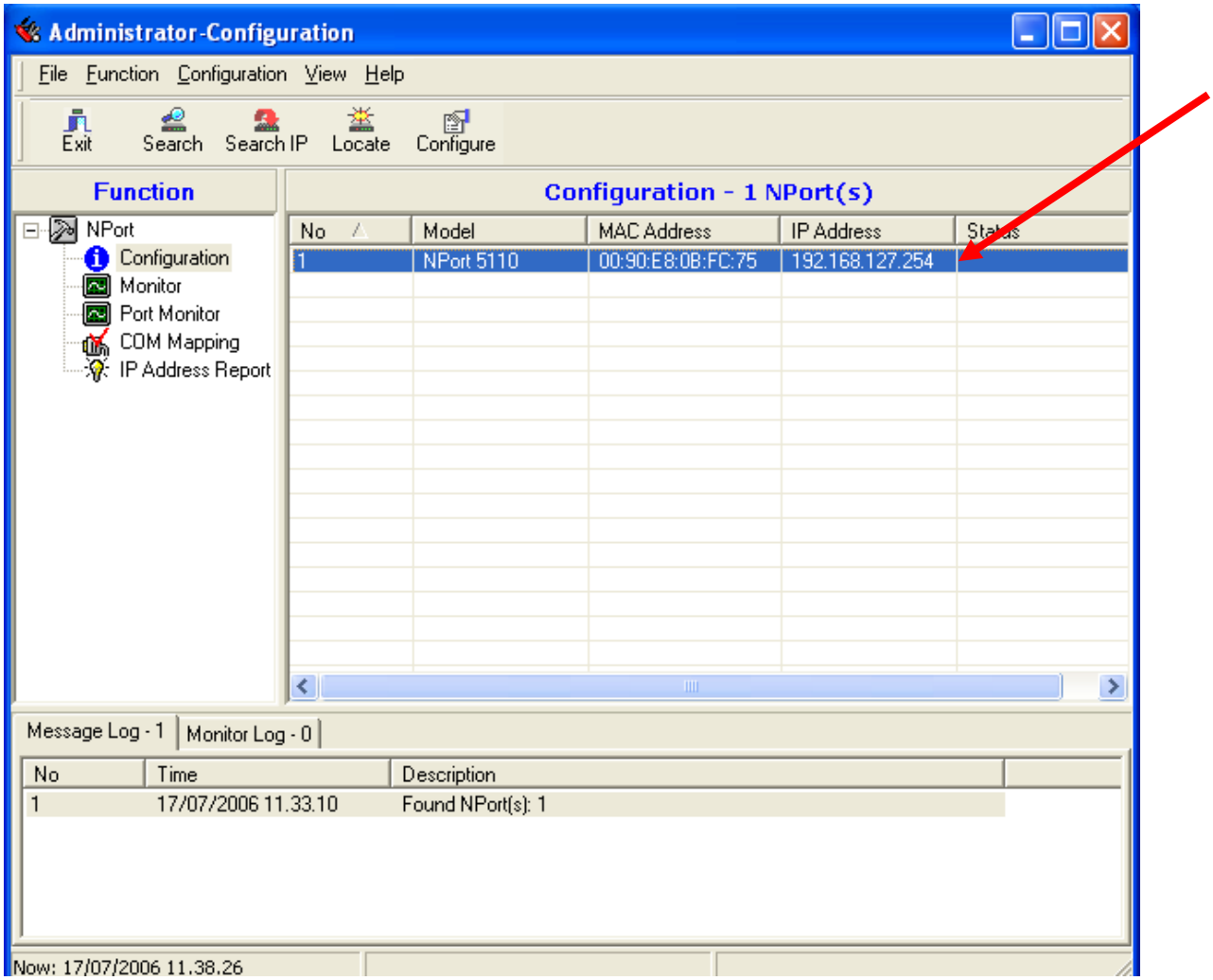
2 L'interface reliée au réseau Ethernet est indiquée sur la ligne où sont récapitulées les informations suivantes : Numéro de l'interface connectée, Modèle, adresse MAC, adresse IP.
Vérifier que les données relatives au modèle et aux adresses MAC et IP correspondent bien à celles qui sont indiquées sur l'étiquette des caractéristiques techniques, présente dans l'**Interface RS232/Ethernet**.



Toute autre interface déjà reliée au réseau LAN est visualisée sur d'autres lignes :



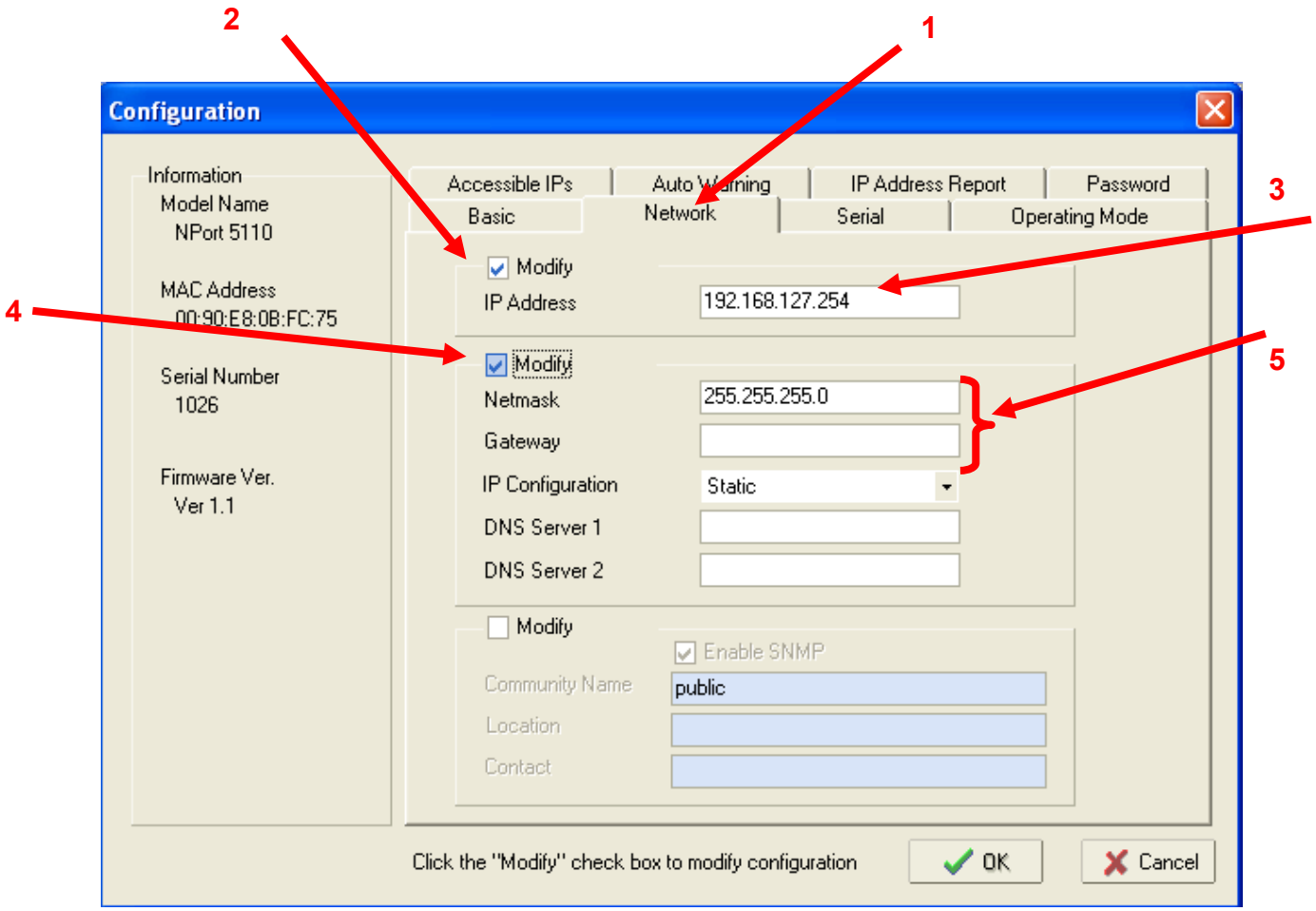
3 L'interface est initialement configurée avec des paramètres de réseau. Pour modifier ces paramètres en fonction du réseau utilisé, double-cliquer sur la ligne de l'interface reliée :



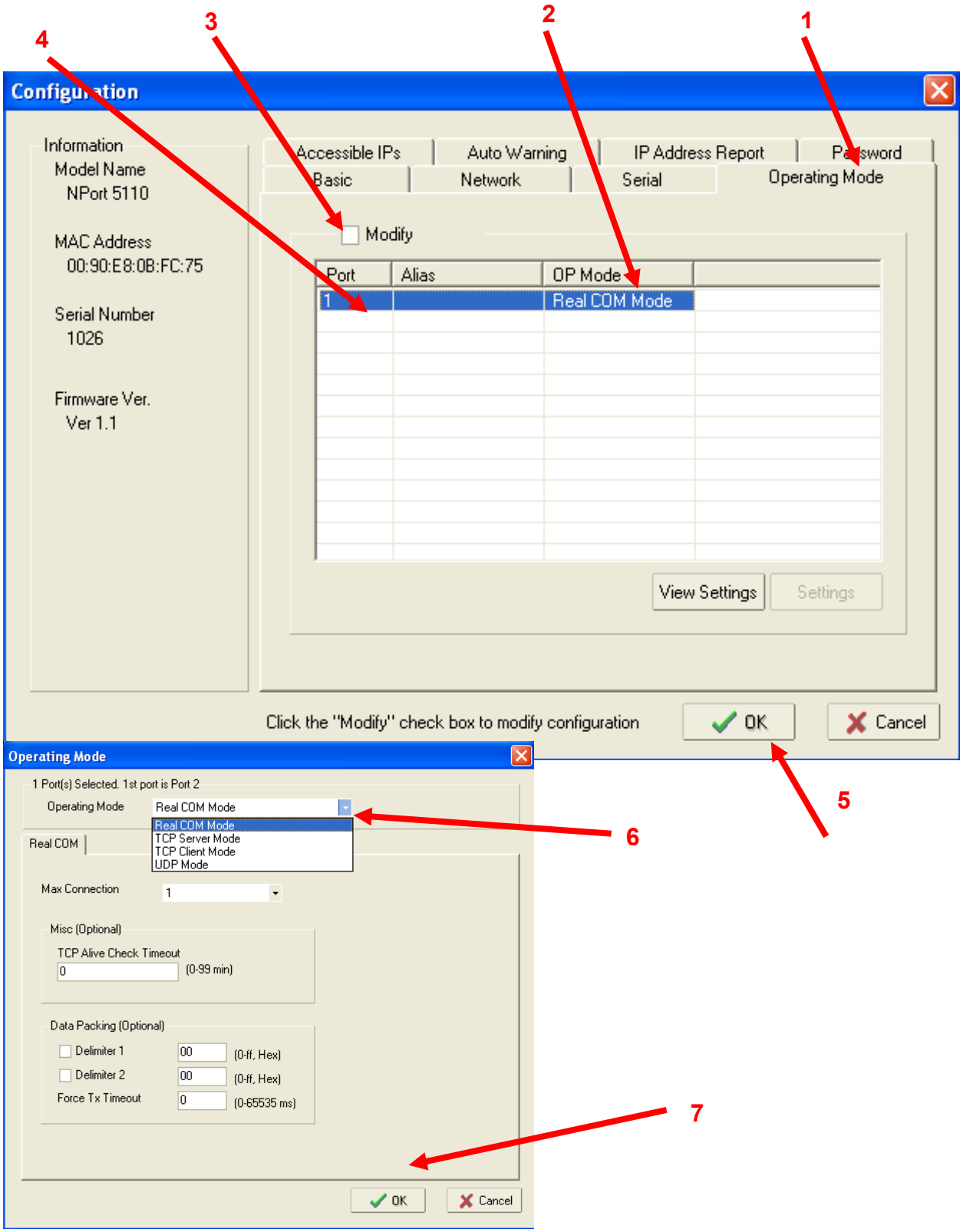
4 Sélectionner l'option Network (1). Cliquer sur Modify (2) et paramétrer une adresse IP libre du réseau LAN concerné (3). Cliquer sur Modify (4) et entrer les autres paramètres (5).

N.B. S'adresser à son propre gestionnaire de système pour obtenir les paramètres du réseau LAN où sera installée l'interface :

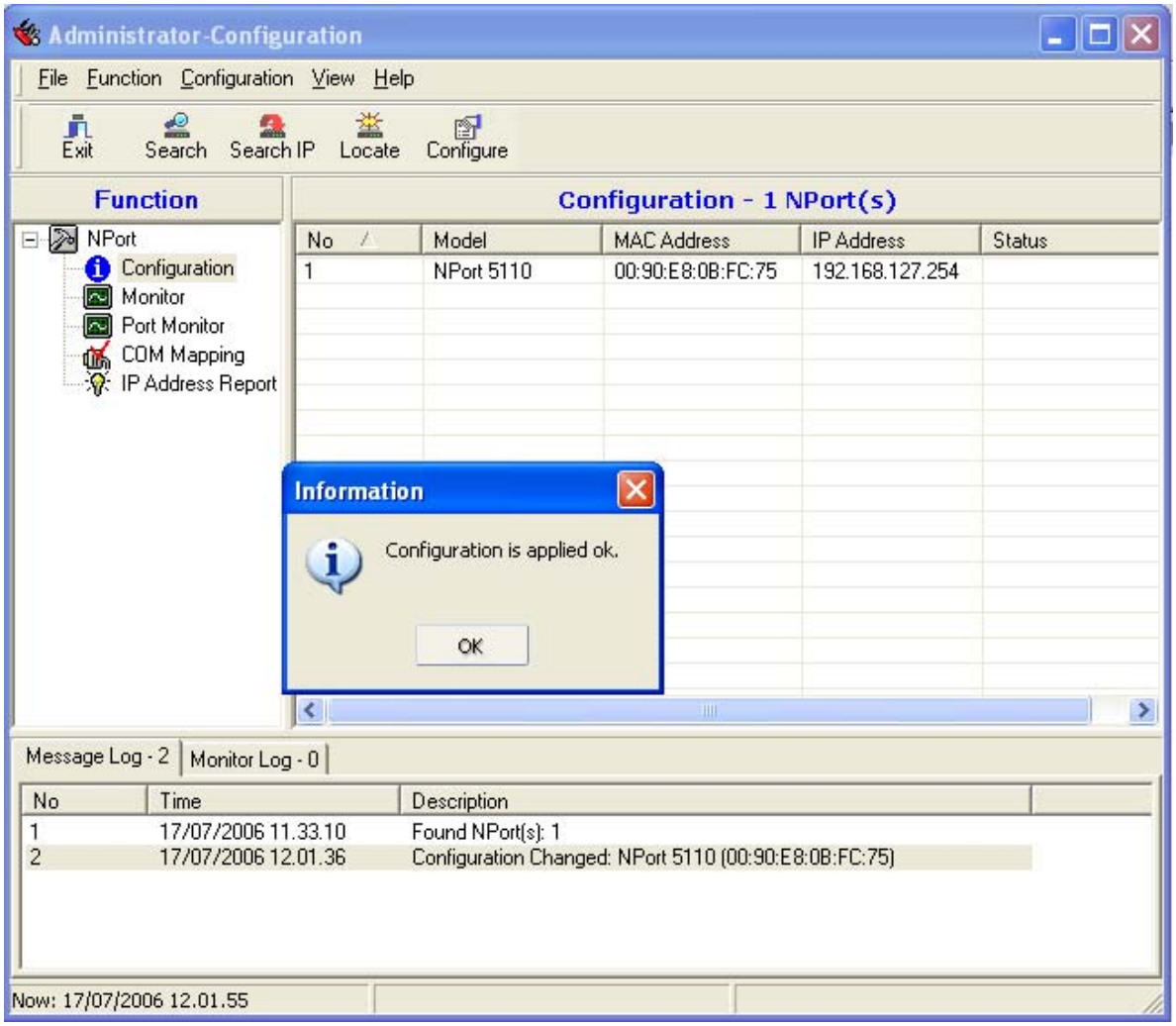
- ADRESSE IP
- MASQUE DE SOUS-RÉSEAU (OU NETMASK)
- ADRESSE PASSERELLE



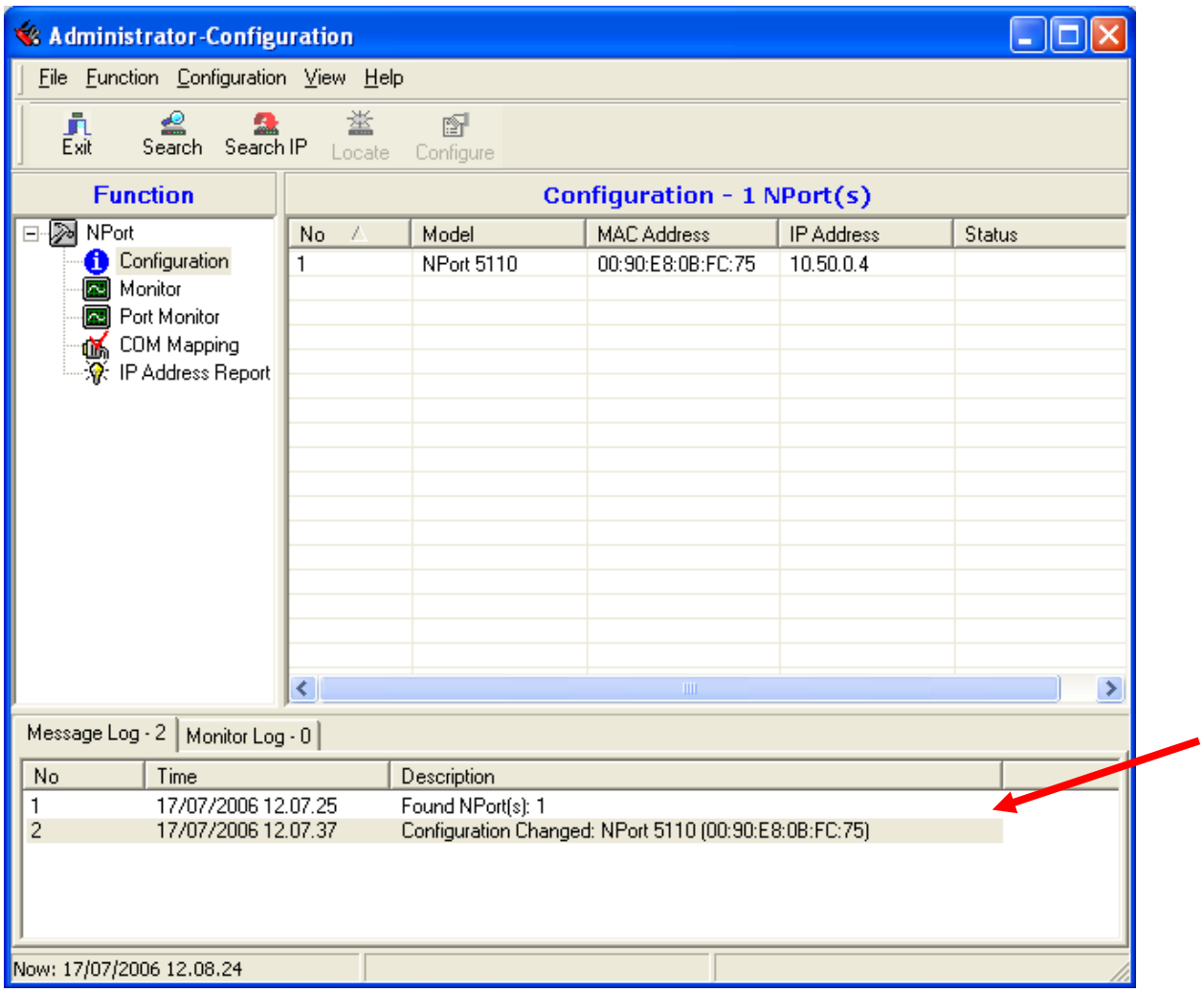
5 Sélectionner l'option Operating Mode (1), s'assurer que l'indication Real COM Mode (2) est bien présente. Dans le cas contraire, cocher l'option Modify (3), double-cliquer sur la ligne (4) et à l'intérieur de la fenêtre qui s'affiche, sélectionner au niveau de la ligne Operating Mode la rubrique Real COM Mode (6) ; confirmer avec OK (7).
Fermer la fenêtre Configuration à l'aide du bouton OK (5)



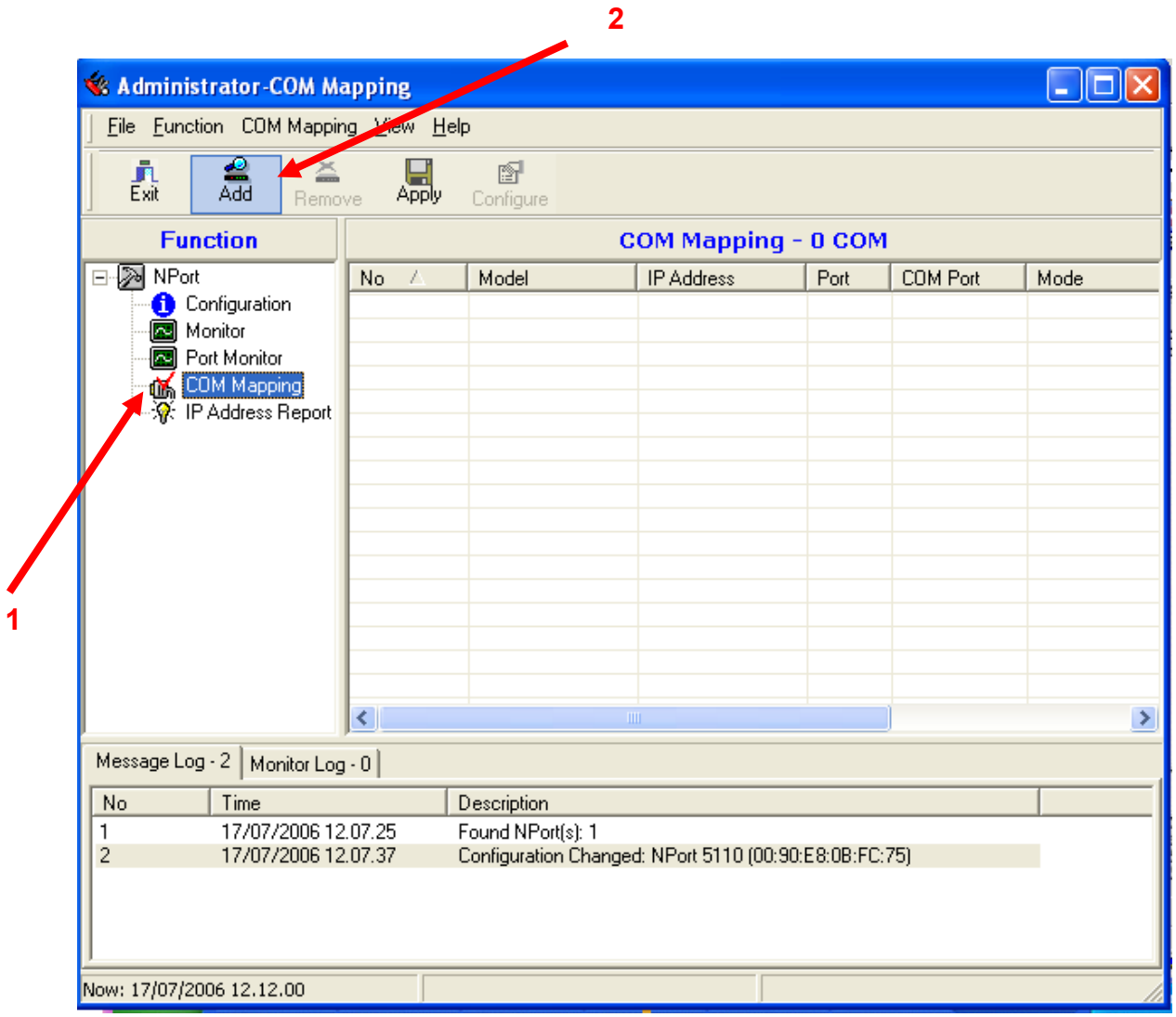
6 Les paramètres modifiés sont confirmés par le message suivant, presser OK.



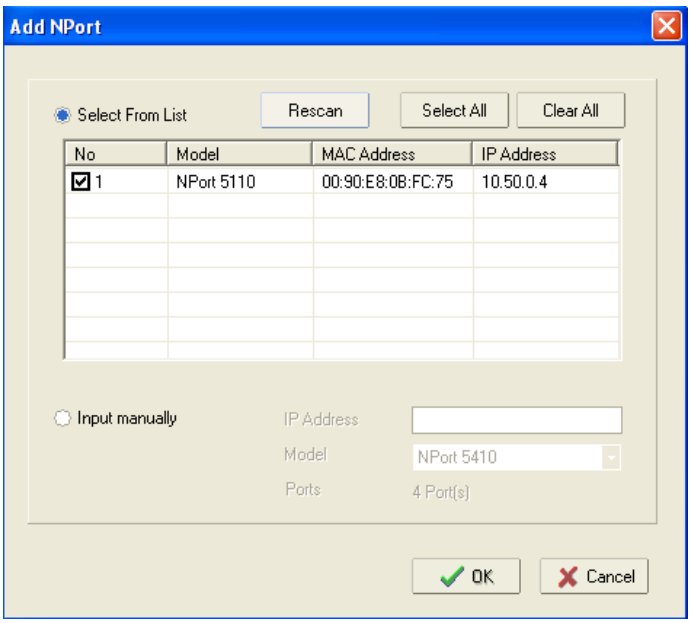
7 La fenêtre du bas indique la séquence des opérations qui ont été effectuées à partir de l'ouverture initiale du programme :



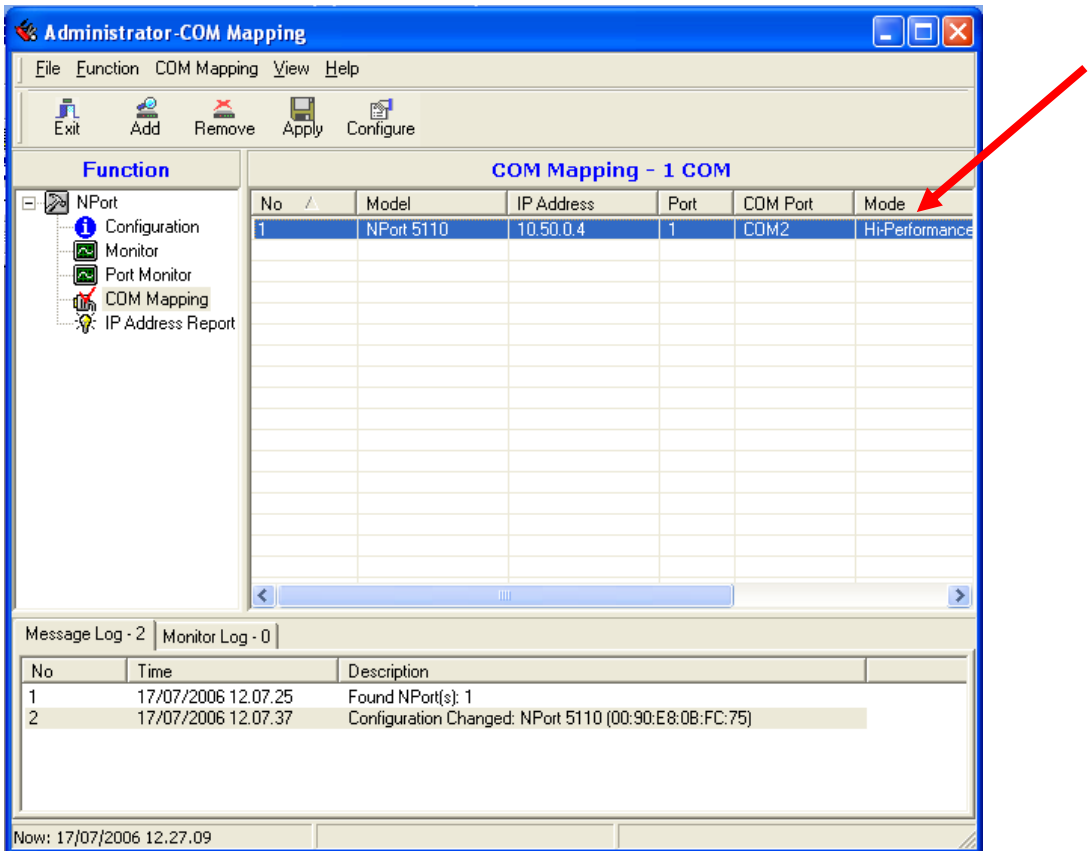
8 Sélectionner la rubrique COM Mapping (1) et cliquer sur Add (2) :



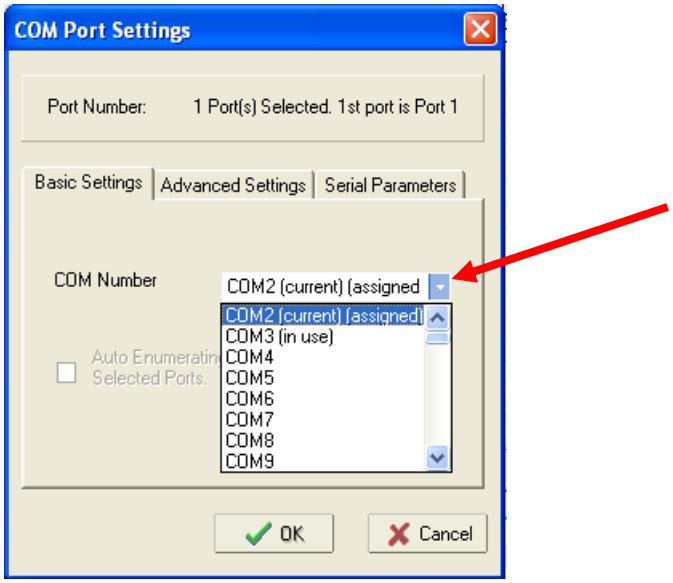
9 Confirmer avec OK l'ajout de l'interface dans la configuration du port série associé au dispositif. Si plusieurs interfaces s'affichent, cocher celle qui présente l'adresse IP indiquée précédemment :



10 Le programme associe automatiquement l'interface à un port série libre du PC de supervision. Pour modifier la configuration, double-cliquer sur la ligne du dispositif ajouté :

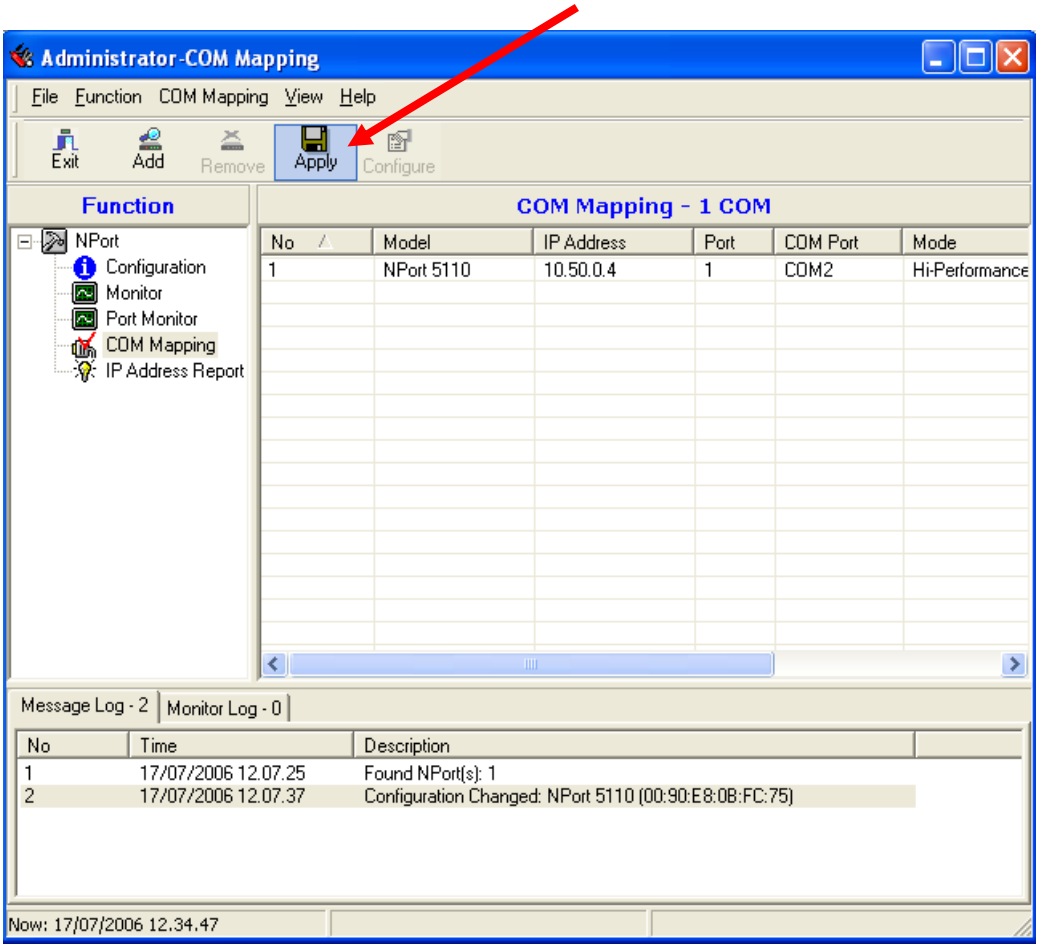


11 La fenêtre ci-après s'ouvre. Cliquer sur le menu déroulant pour sélectionner un port série inutilisé (sans aucun commentaire entre parenthèses). Presser OK pour confirmer.

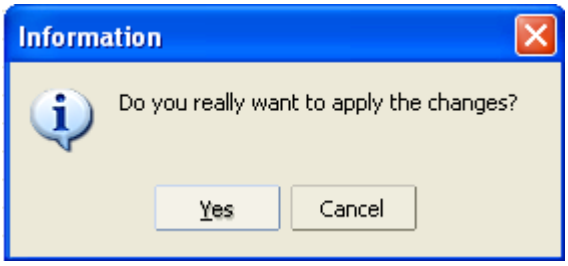


Il s'agit du port série à utiliser dans le programme de surveillance DARDO PC LITE/MAP pour établir la communication entre le programme et l'installation.

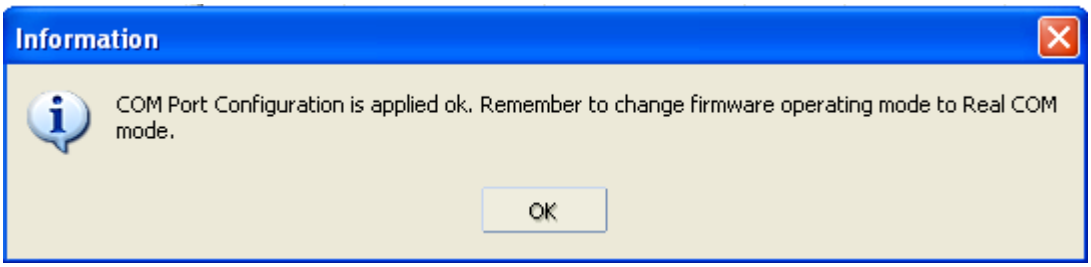
12 Une fois l'attribution terminée, presser Apply pour sauvegarder les modifications :



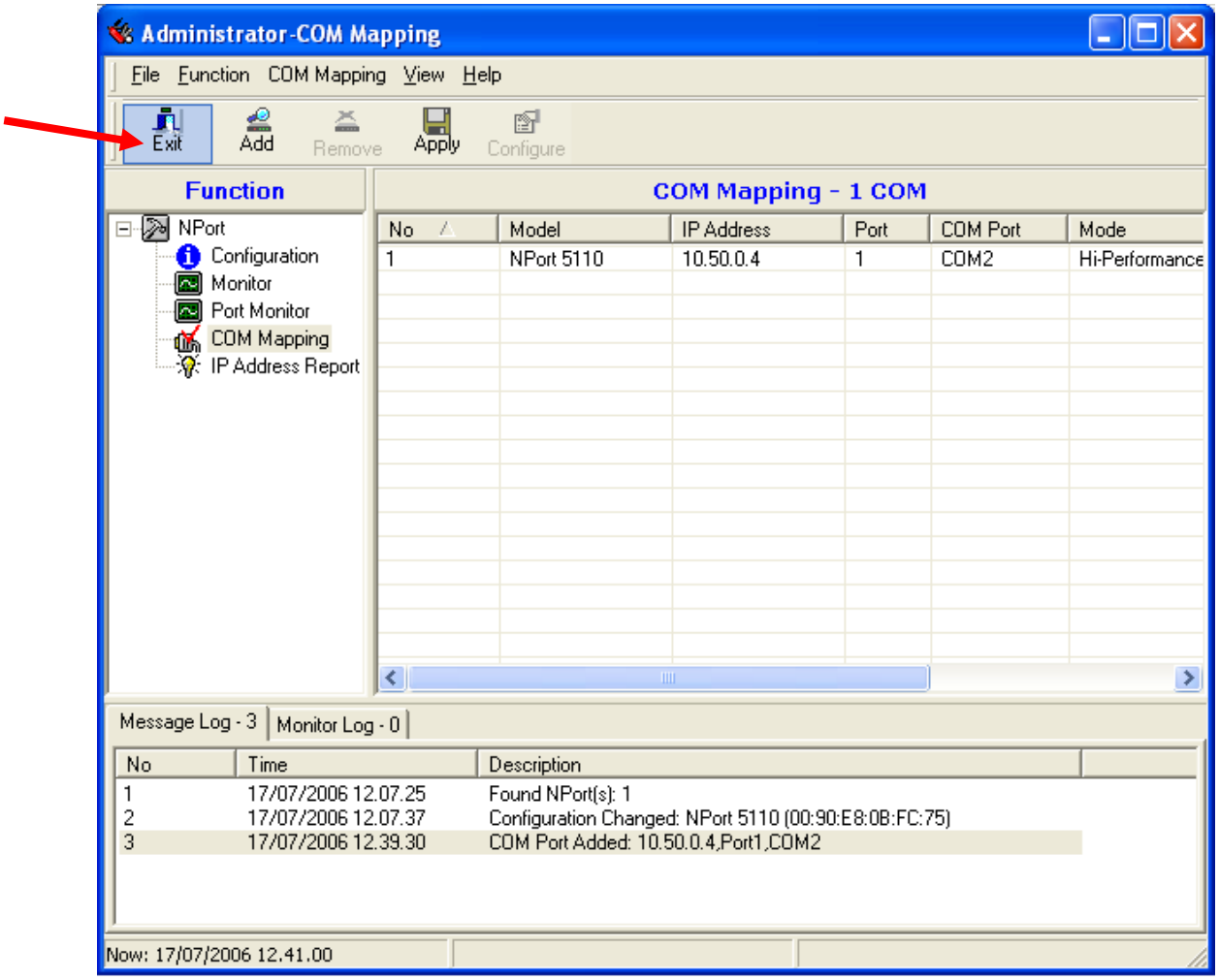
13 Confirmer avec Yes :



14 Confirmer avec OK :



15 L'interface est configurée. Il est possible de quitter le programme en cliquant sur Exit :



Recommandations en cas de problèmes fonctionnels entre l'interface RS232/Ethernet et le PC

- Contrôler la compatibilité entre le programme installé NPort Administrator Suite et les logiciels antivirus ou pare-feu éventuellement installés sur le PC.

- Avec la commande DOS « ping », vérifier que l'adresse IP attribuée à l'interface RS232/Ethernet n'est pas une adresse dupliquée.

- S'il est impossible de joindre l'interface RS232/Ethernet via le programme NPort Administrator Suite, effectuer les essais suivants :

    - Contrôler l'accessibilité de l'interface à partir d'un PC relié au même HUB/SWITCH auquel elle est reliée.

    - Contrôler l'accessibilité du serveur au dispositif HUB/SWITCH auquel l'interface est reliée.

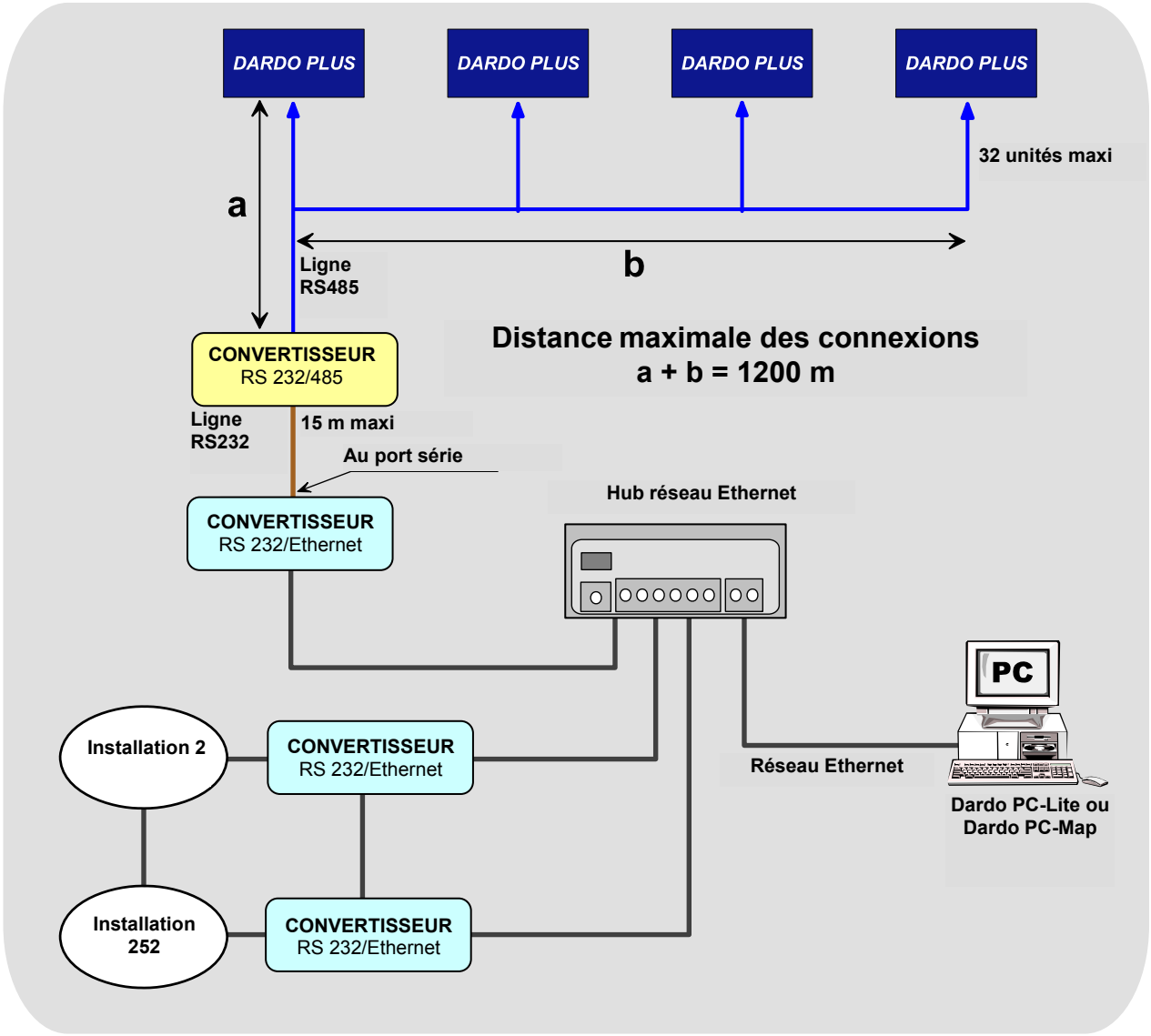
    - Si c'est possible, effacer la table ARP du dispositif HUB/SWITCH auquel l'interface est reliée ou, en dernier ressort, redémarrer le dispositif HUB/SWITCH proprement dit et effectuer de nouveau des tests d'accessibilité.

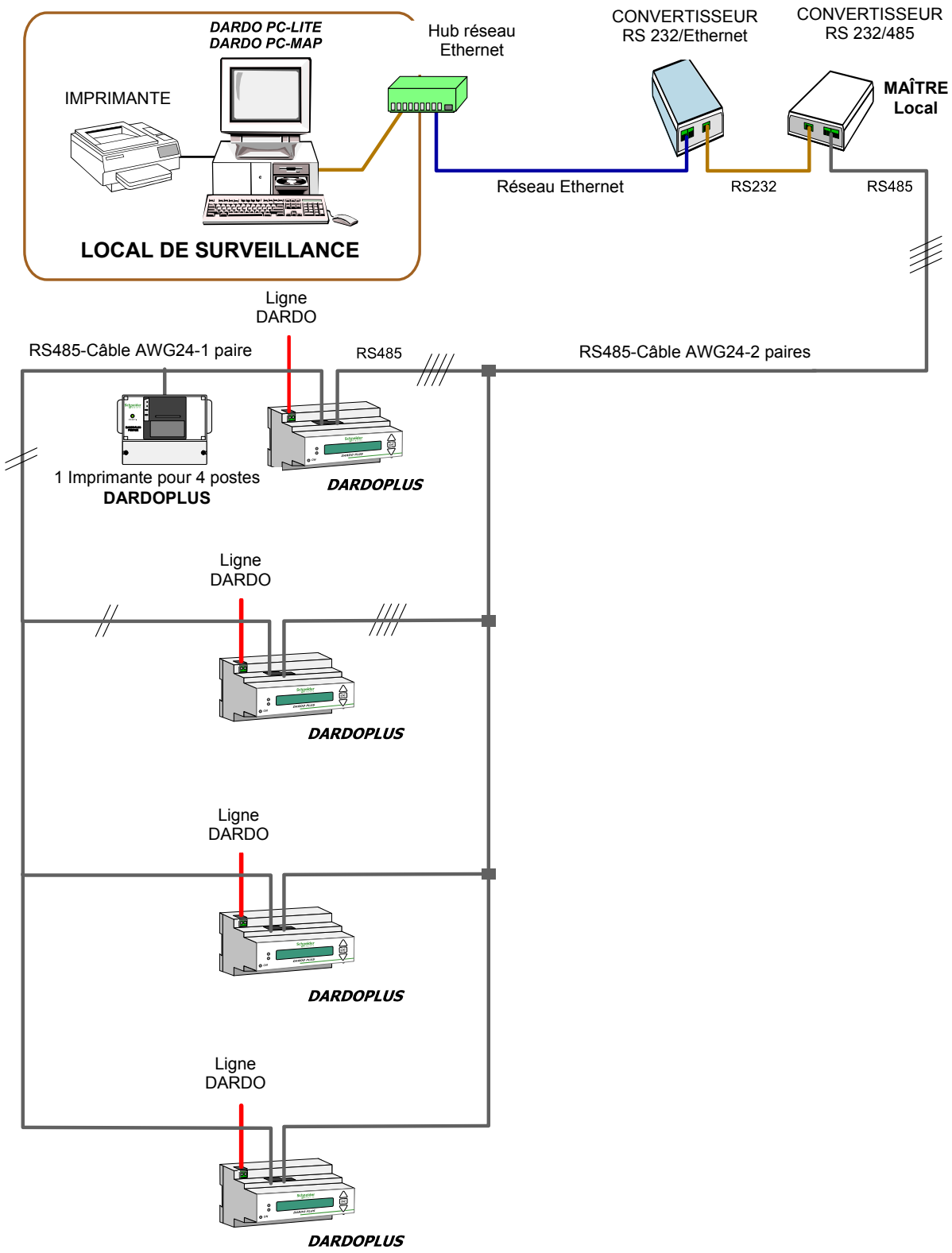
Annexes

Distances de câblage maximales

Remarque : Le système de supervision peut surveiller jusqu'à 256 installations d'éclairages de secours (moins le nombre de ports série du PC).

Exemple de système de supervision




DARDO PC-LITE
DARDO PC-MAP
IMPRIMANTE
LOCAL DE SURVEILLANCE
Hub réseau Ethernet
CONVERTISSEUR RS 232/Ethernet
CONVERTISSEUR RS 232/485
MAÎTRE Local
Réseau Ethernet
RS232
RS485
Ligne DARDO
RS485-Câble AWG24-1 paire
RS485
RS485-Câble AWG24-2 paires
1 Imprimante pour 4 postes DARDOPLUS
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Notes

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Premissa

Esta secção deve ser lida antes de qualquer outra documentação e antes de iniciar qualquer tipo de operação no produto.

O funcionamento correcto da Interface RS232/Ethernet é garantido somente se associado a aparelhos de emergência SCHNEIDER ELECTRIC.

O manual de instruções

A quem é destinado

Este manual é destinado a técnicos de instalação com conhecimentos adequados para operar de modo seguro em sistemas hardware e software.

Importância do manual

Este manual de instruções contém as informações necessárias para a instalação e o uso **da Interface RS232/Ethernet.**

É proibida a reprodução e a transmissão parcial ou integral do manual a terceiros, sem a autorização escrita da SCHNEIDER ELECTRIC.

A SCHNEIDER ELECTRIC reserva-se o direito de realizar modificações para melhorar seus produtos, sem nenhum aviso prévio. Por isso, pode ocorrer que as ilustrações do manual não correspondam exactamente ao aparelho fornecido.

Certifique-se de que todo acréscimo ou actualização feita pelo fabricante seja inserido e integrado neste manual de instruções.

Conservação do manual

O manual deve ser conservado para futuras consultas por toda a vida útil do aparelho e deve estar disponível para todas as operações ou posteriores reinstalações do aparelho.

Simbologia usada

Dentro dos manuais de instruções é usada uma série de símbolos que serve para chamar a atenção para sugestões, notas, recomendações e normas relativas ao uso correcto e à segurança da aplicação, além da segurança física do operador.

A seguir, apresentamos um resumo da simbologia principal.

Notas gerais:

NOTA OU NORMA OPERATIVA GERAL

Sinais de recomendação (forma rectangular):

É OBRIGATÓRIO DESLIGAR A ALIMENTAÇÃO ELÉCTRICA (ABRIR O INTERRUPTOR GERAL).

Sinais de aviso de perigo para a pessoa e/ou para o aparelho (forma triangular):

PERIGO GERAL PARA A PESSOA E/OU PARA O APARELHO

PERIGO DE NATUREZA ELÉCTRICA PARA A PESSOA E/OU PARA O APARELHO (FULGURAÇÃO)

Avisos

- ✓ Para informações técnicas relativas à instalação, ao uso do produto ou em caso de problemas, entre em contacto com a SCHNEIDER ELECTRIC.
- ✓ A instalação ou as intervenções no aparelho devem ser feitas por pessoas qualificadas, conforme as normas de instalação nacionais vigentes, em local protegido da poeira e da humidade.
- ✓ Colocar um sistema de interrupção a montante da ligação de fornecimento de energia.
- ✓ **Para a segurança das pessoas e o bom funcionamento da Interface RS232/Ethernet é INDISPENSÁVEL uma ligação à terra eficiente, de acordo com as normas vigentes.**
- ✓ Antes de qualquer trabalho de manutenção, desligar sempre o aparelho da rede.
- ✓ **O símbolo do contentor de lixo com cruz sobreposta aplicado no aparelho indica que, ao eliminar o produto, ele deve ser entregue a um centro de recolha autorizado para limitar o impacto negativo deste tipo de produto ao meio ambiente e à saúde do homem. Para informações sobre os centros de recolha selectiva e sobre os termos de lei em vigor, dirigir-se ao serviço competente do organismo local específico.**

ATENÇÃO:
A INOBSERVÂNCIA DAS INSTRUÇÕES DE INSTALAÇÃO E USO DO APARELHO PROVOCA A PERDA DA GARANTIA.

Segurança

- **A interface RS232/Ethernet deve ser instalada** em local protegido da poeira, da humidade e de vapores agressivos.
- Qualquer intervenção de instalação e/ou manutenção do aparelho deve ser feita **com a energia eléctrica desligada**.
  Para isso, é necessário providenciar um dispositivo de interrupção eléctrica na origem da fonte de fornecimento de energia do aparelho.
- Use somente a fonte de alimentação fornecida com o aparelho.

- Certifique-se de que a ligação da fonte de alimentação à terra seja segura e eficaz.
- O bom funcionamento da interface RS232/Ethernet é garantido somente se usado com aparelhos de emergência SCHNEIDER ELECTRIC.

Conteúdo da embalagem

Abrir a embalagem e certificar-se de que contém todos os itens do aparelho:

(1) **Interface RS232/Ethernet**
(2) Fonte de alimentação 230 Vac/12 Vdc
(3) CD com software de configuração e documentação do produto
(4) Manual de uso e manutenção

Descrição Geral

A interface RS232/Ethernet permite transferir a suporte físico de rede Ethernet o diálogo entre **PC** de supervisão e os sistemas de controlo e gestão de redes de iluminação de emergência da série **DARDO**.

Uso previsto

As **interfaces RS232/Ethernet** são inseridas em sistemas de supervisão constituídos por:

- **PC** em local remoto com sistema operacional **MS Windows 98** ou superior, software de configuração **Nport Administrator Suite** e software de monitoragem e gestão **DARDO PC LITE**.
  Nota: o software e o respectivo manual são actualizados frequentemente. O conteúdo do CD pode sofrer variações.

  A melhor coisa é ler o arquivo **Readme.txt** e **Version.TXT** presentes no CD. Todas as actualizações são apresentadas nesses ficheiros.

- Centrais DARDOPLUS.

Cada sistema de supervisão pode ser constituído por 256 instalações menos o número de portas seriais do PC.
Cada instalação será constituída por uma **interface RS232/Ethernet**, um **Conversor RS232/485**, ligados a até um máximo de 32 centrais.

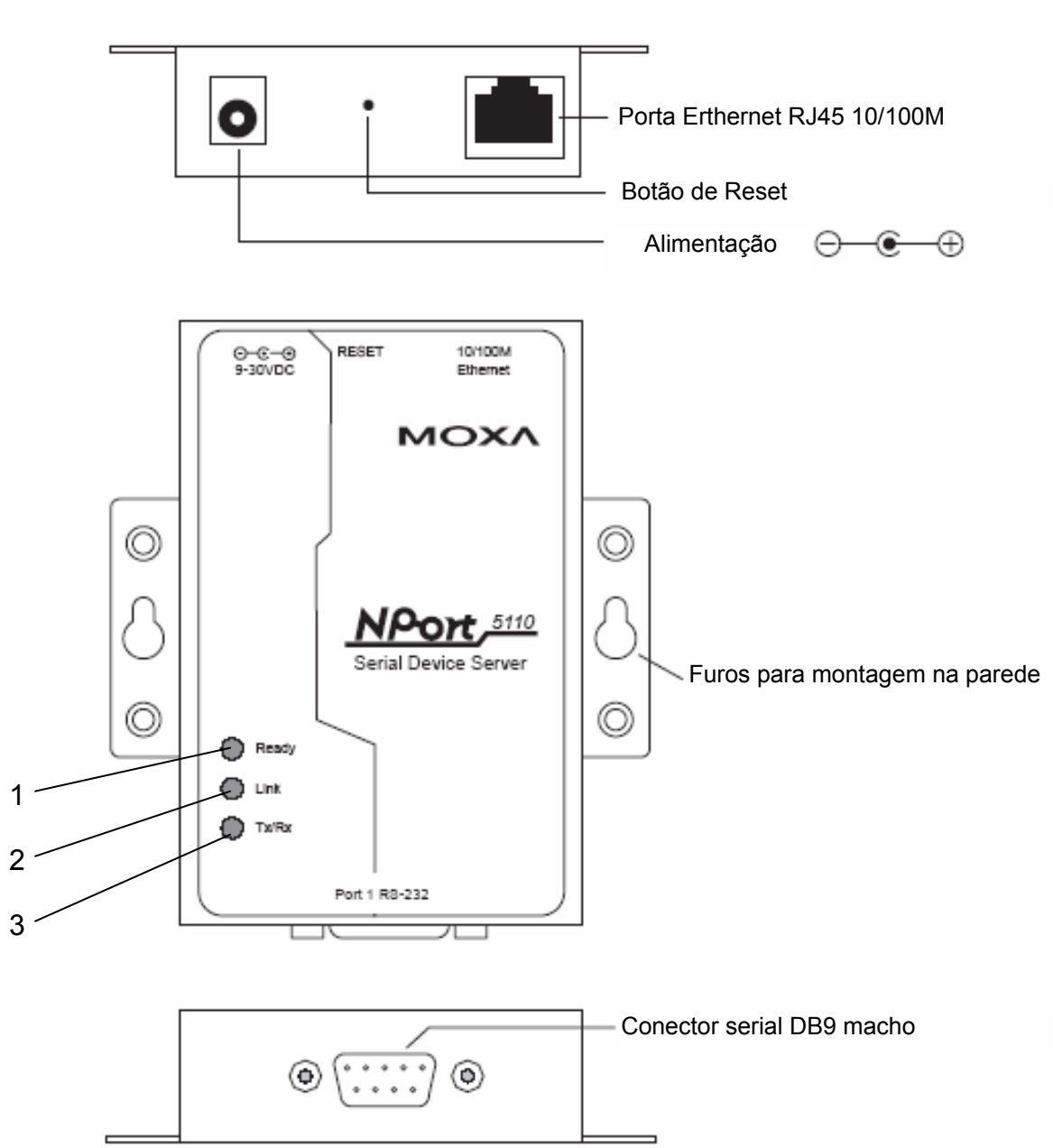
Dados Técnicos

Interface RS232/Ethernet

Características gerais

- Alimentação: 9 – 30 Vdc
- Absorção: 200 mA (9V); 165 mA (12V)
- Potência dissipada: 1,8 (9V): 1,98W (12V)
- Porta serial: RS232 (9 pólos)
- Porta Ethernet: 10/100 Mbps (conector RJ-45)
- Cabo de conexão RS232: AWG24*
- Contentor: Alumínio (1mm)
- Dimensões (Larg. x Alt. x Prof.): 75,2 x 80 x 22 mm (com suportes de fixação)
  52 x 80 x 22 mm (sem suportes de fixação)
- Temperatura de exercício: mín. 0 °C máx +55 °C
- Temperatura de armazenagem: mín. -20 °C máx +85 °C
- Humidade relativa (não condensada): 5 – 95%
- Peso: 134 g
- Limitador de tensão (porta serial): 15 kV ESV (descargas electrostáticas)
- Isolamento magnético (porta ethernet): 1,5 kV
- Protecção linha de alimentação: 4 kV Burst (EFT), EN 61000 – 4 – 4
  2 kV Surge, EN 61000 – 4 – 5
- Certificados: CE classe A, FCC Classe A, CUL, TÜV

(*) Cabo blindado 3 fios, bitola 0,51 mm^2 com fio rígido ou 0,16mm^2 com fio flexível, tipo AWG24. Aconselhado para conexões de até 15 m.



Botão de Reset

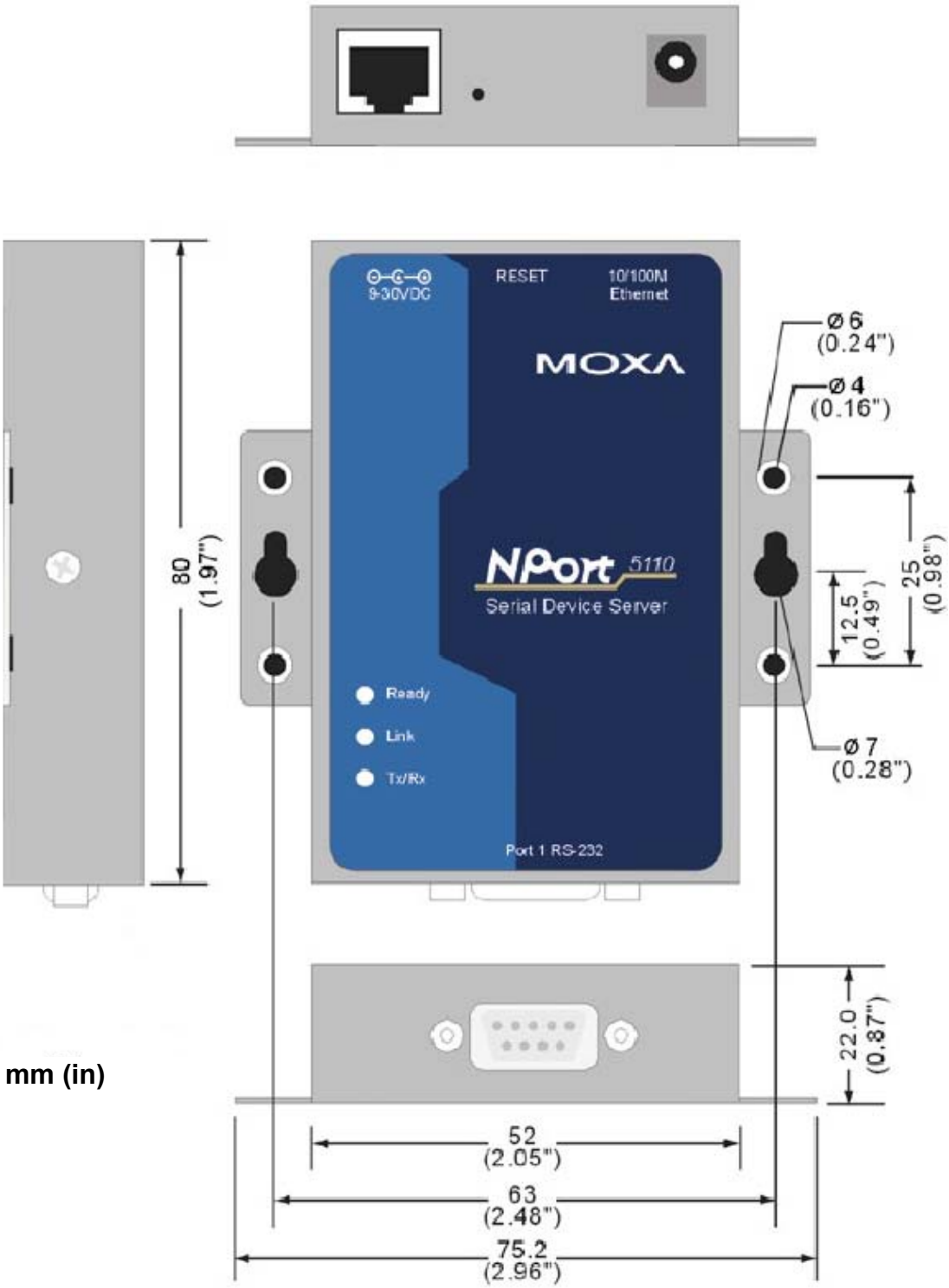
Ao manter pressionado o botão de Reset por 5 segundos a interface será configurada com as definições iniciais de fábrica:

- Usar um objecto pontudo para pressionar o botão.
- Ao pressionar o botão, o LED Ready (Pronto)(1) começa a piscar.
- A configuração inicial será carregada depois que o LED Ready (1) parar de piscar (após aproximadamente 5 segundos).
- Neste ponto, é possível soltar o botão.

Funcionamento do LED

Nome do LED	Cor do LED	Função do LED
Ready (Pronto) (1)	Vermelho	Aceso fixo: A interface está ligada e a inicializar. A piscar: Indica um conflito do endereço IP ou o servidor de rede não responde correctamente.
	Verde	Aceso fixo: A interface está ligada e está a funcionar normalmente. A piscar: A interface foi localizada pelo software NPort Administrator.
	Apagado	A interface não está alimentada ou há uma condição de erro de alimentação.
Link (2)	Laranja	Conexão Ethernet 10 Mbs.
	Verde	Conexão Ethernet 100 Mbs.
	Apagado	Cabo Ethernet desconectado ou em curto-circuito.
Tx / Rx (3)	Laranja	A porta serial está a receber dados.
	Verde	A porta serial está a transmitir dados.
	Apagado	Nenhum dado foi transmitido ou recebido pela porta serial.

Características mecânicas



Unidade = mm (in)

Fonte de alimentação para Interface RS232/Ethernet

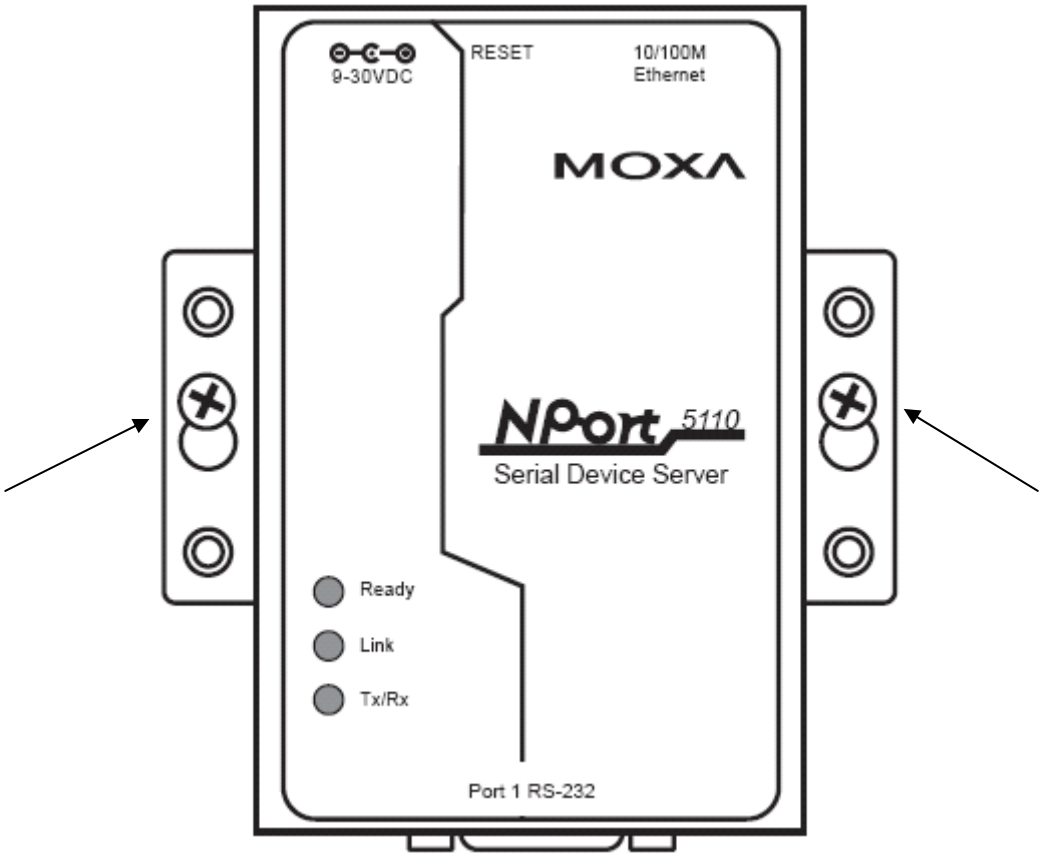
Características gerais

- Alimentação: 230 Vac 50 Hz, 49 mA
- Saída: 12 Vdc 400 mA
- Potência dissipada: 6,5 W
- Dimensões (Larg. x Alt. x Prof.): 51 x 63 x 41 mm
- Temperatura de exercício: mín. 0 °C máx +55 °C
- Temperatura de armazenagem: mín. –20 °C máx +85 °C
- Humidade relativa (não condensada): 5 – 95%
- Peso: 317,5 g
- Comprimento do cabo: 1818 mm
- Certificados: CE, TÜV

Instalação

Montagem da Interface

É possível montar a interface na parede, a usar os furos presentes nas abas laterais.



Requisitos de sistema

Para instalar a Interface RS232/Ethernet é necessário verificar se o sistema satisfaz os requisitos mínimos:

Sistema operacional:	Windows 98, 2000, NT 4.0, XP (+sp2)
Processador:	Pentium 200MHz ou superior
Memória:	64 MB Ram
Hard disk:	2 GB
Placa Gráfica:	resolução 1024 x 768
Leitor de CD	
Mouse	
Teclado Windows 98 compatível	
1 porta serial	
Placa de rede Ethernet 10/100 Mbps	

Informações para a instalação

Para instalar a **Interface RS232/Ethernet** é necessário fazer os seguintes passos nesta ordem:

1) Conectar a interface a uma rede Ethernet (v. parágrafo Conexões rede Ethernet)

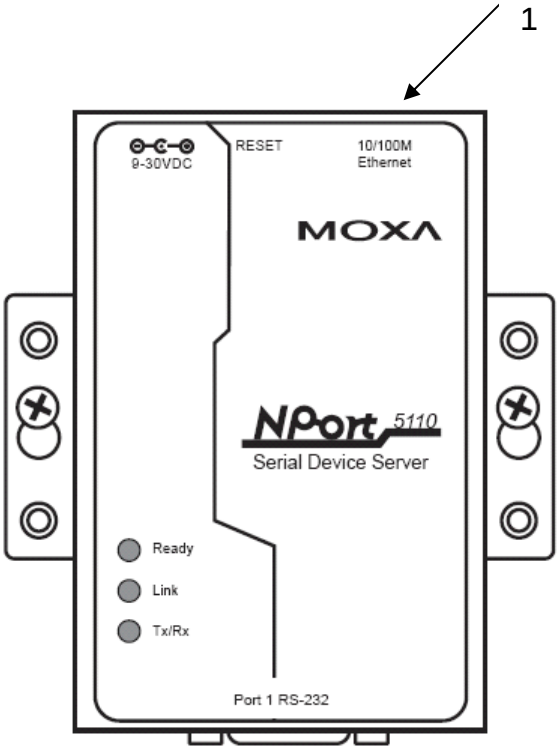
2) Conectar a interface à porta **RS232** do **Conversor DARDO RS232/485**
   (v. parágrafo Conexões cabo serial).
   Ver exemplo de conexão com sistemas de supervisão SCHNEIDER ELECTRIC
   (v. secção Apêndices)

3) Fornecer energia à interface, a usar a fonte de alimentação (v. parágrafo Conexões fonte de alimentação)

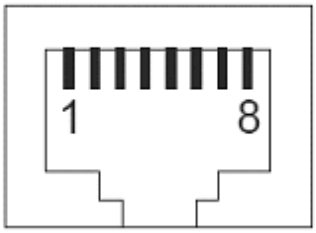
4) Configurar a interface (v. Secção 5), depois de ter instalado o software de configuração, presente no CD fornecido com o conjunto

Conexões à rede Ethernet

Conectar a porta 10/100 M Ethernet (1) da interface a um dispositivo HUB/SWITCH de rede através de um cabo **RJ45**.



Porta 10/100 M Ethernet da interface

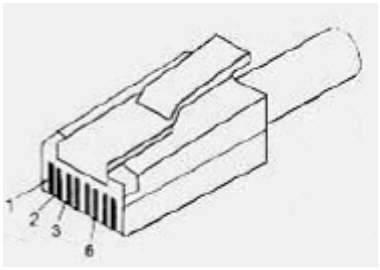


Número PIN	Sinais Ethernet
1	Tx+
2	Tx-
3	Rx+
6	Rx-

Cabo RJ45

Use um cabo RJ45 recto:

Pin N.1	Transmissão de dados +
Pin N.2	Transmissão de dados -
Pin N.3	Recepção de dados +
Pin N.4	Reservado
Pin N.5	Reservado
Pin N.6	Recepção de dados -
Pin N.7	Reservado
Pin N.8	Reservado



Conexões:
C = lado **Interface RS232/Ethernet**
H = lado HUB/SWITCH rede Ethernet

ATENÇÃO:

USAR UM CABO UTP (UNSHIELDED TWISTED PAIR) DE PAR TRANÇADO SEM BLINDAGEM, DE CATEGORIA 5, ADEQUADO PARA A REDE ETHERNET UTILIZADA.

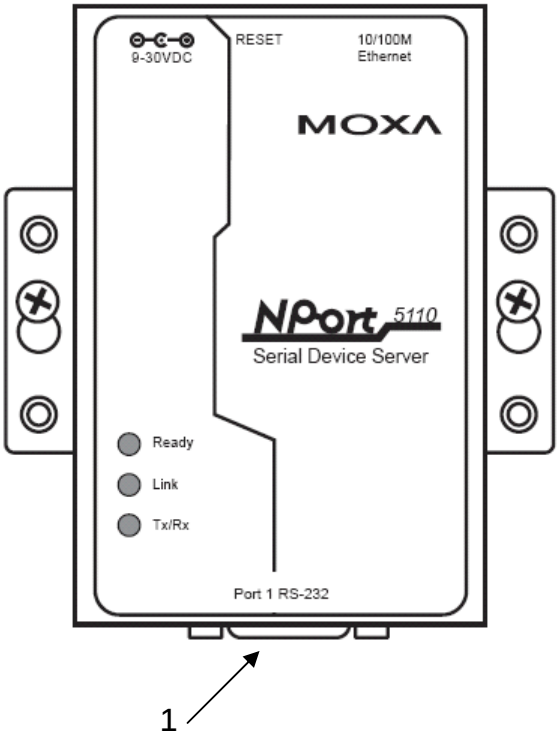
CERTIFICAR-SE DE QUE O HUB/SWITCH USADO TENHA AS PORTAS 10/100 MBPS COM AUTOSENSING.

CERTIFICAR-SE DE QUE HÁ EVENTUAIS FILTROS NAS PORTAS DE ACESSO NA CONFIGURAÇÃO DO HUB/SWITCH (POR EX., A CONFIGURAÇÃO "PORT SECURITY" - SEGURANÇA PORTA).

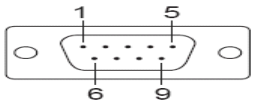
CERTIFICAR-SE DE QUE HAJAM BARREIRAS AO PROTOCOLO TCP/IP NOS APARELHOS DA REDE REDE LAN (POR EX., CONFIGURAÇÃOES DO TIPO "ACCESS CONTROL LISTS" - LISTAS DE CONTROLE DE ACESSO)

Conexões do cabo serial

Conectar a porta serial RS232 (1) da **Interface RS232/Ethernet** à porta RS232 de um **Conversor DARDO RS232/485**, conectado, por sua vez, a um sistema de supervisão SCHNEIDER ELECTRIC (v. secção APÊNDICES)



Porta RS232 da interface

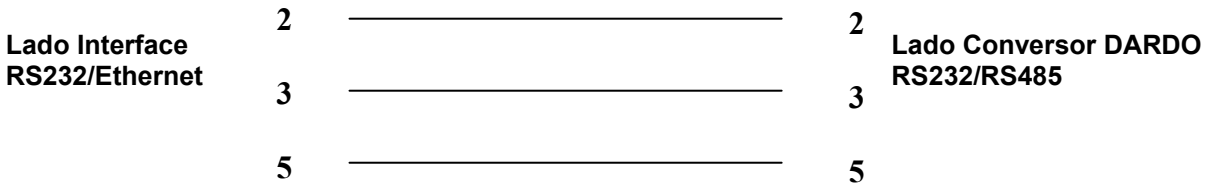


Número PIN	Sinais RS232 usados
1	---
2	RxD
3	TxD
4	---
5	GND
6	---
7	---
8	---
9	---

Cabo serial

O cabo serial a usar deve ser um pin a pin blindado de três fios (tipo AWG24: bitola. 0,51 mm^2 com fio rígido ou 0,16 mm^2 com fio flexível). Os conectores nas duas extremidades do cabo são tipo DB9 fêmea:

Conexão dos PINs relativos aos conectores DB9 do cabo serial

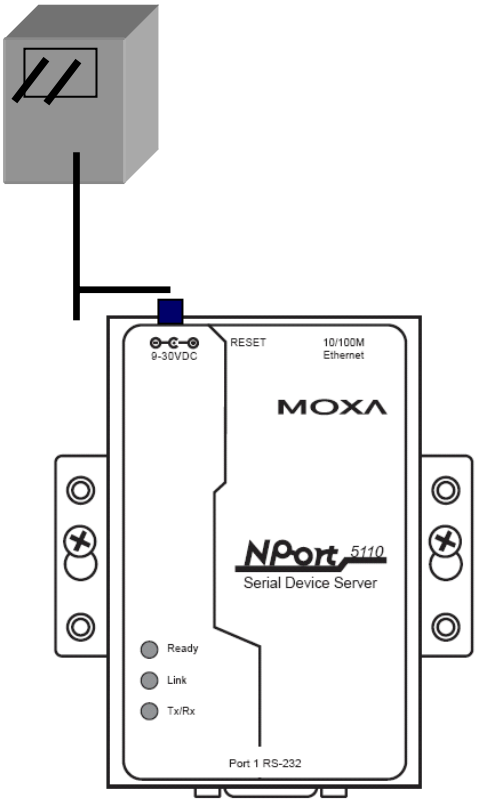


ATENÇÃO:

O COMPRIMENTO DO CABO SERIAL NÃO DEVE SUPERAR 15 METROS.

Conexão da fonte de alimentação

Conexão da fonte de alimentação da **Interface RS232/Ethernet**:



Conectar a interface à rede de alimentação 230 Vac 50 Hz.

Configuração da Interface RS232/Ethernet

Para poder ser usada a **Interface RS232/Ethernet** deve antes ser configurada. Com esse intuito, executar na ordem as operações descritas a seguir.

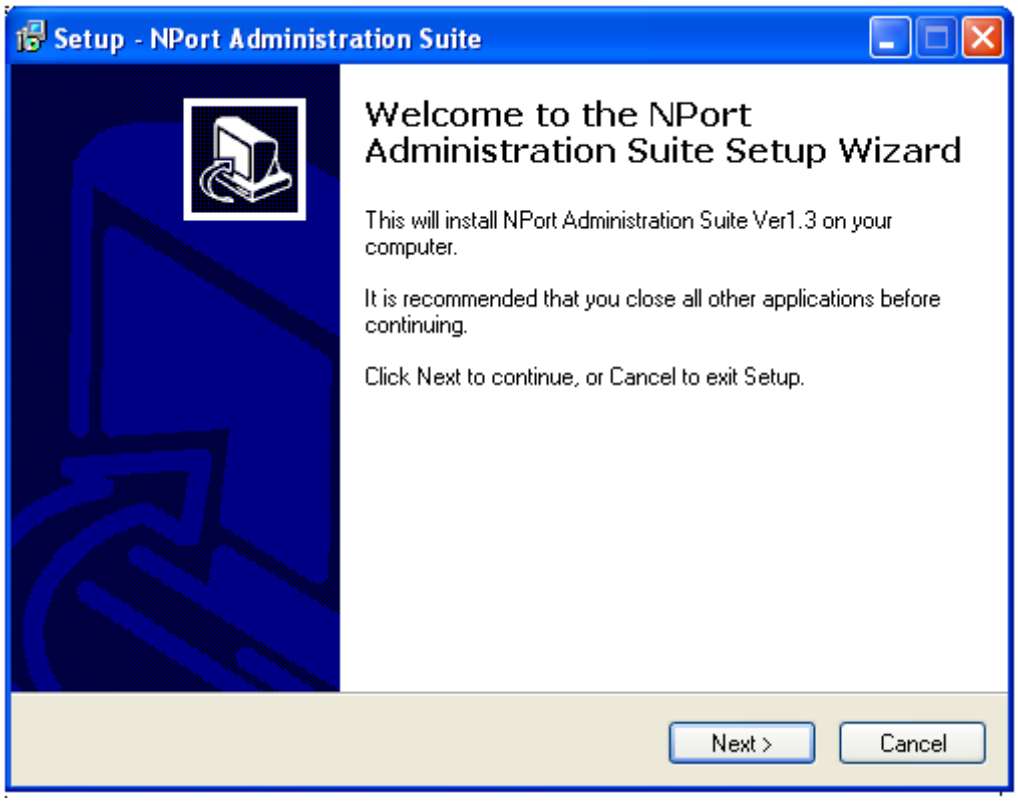
Instalação do programa de configuração

Instalar o programa de configuração no **PC** de supervisão:

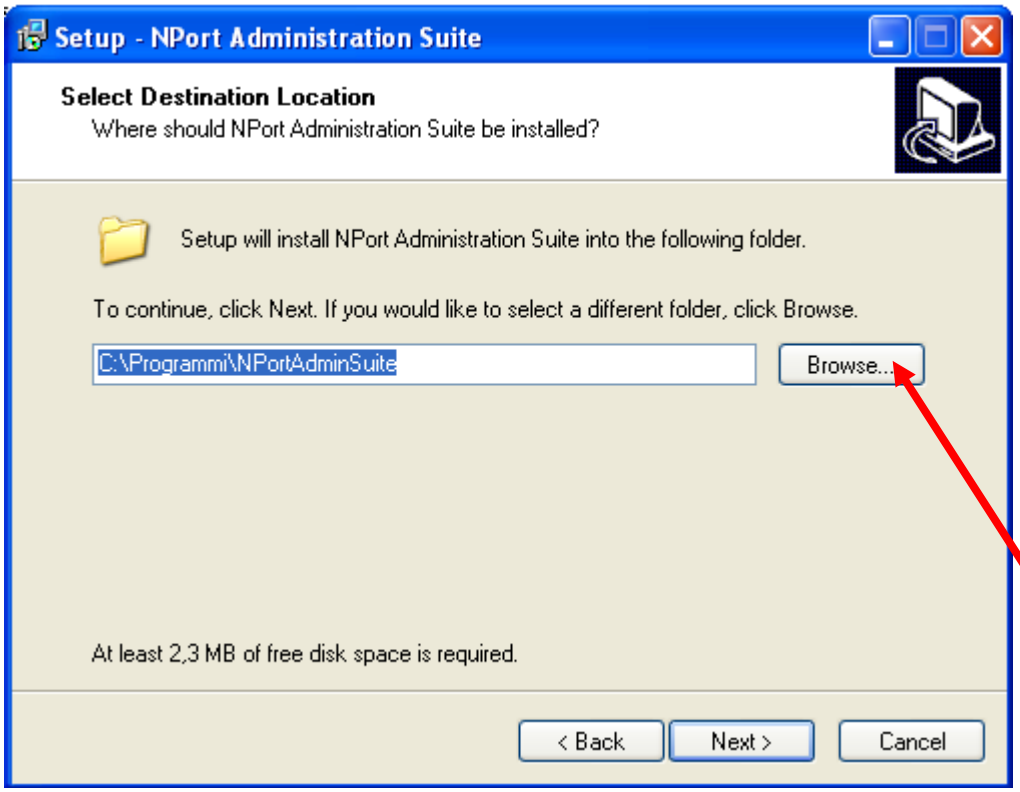
1 Colocar o CD fornecido na unidade de CD-ROM do PC, com o programa "Gestão recursos" entrar na pasta do CD: **\NPort 5110\Software\Windows**. Executar o ficheiro **setup.exe**

ATENÇÃO:

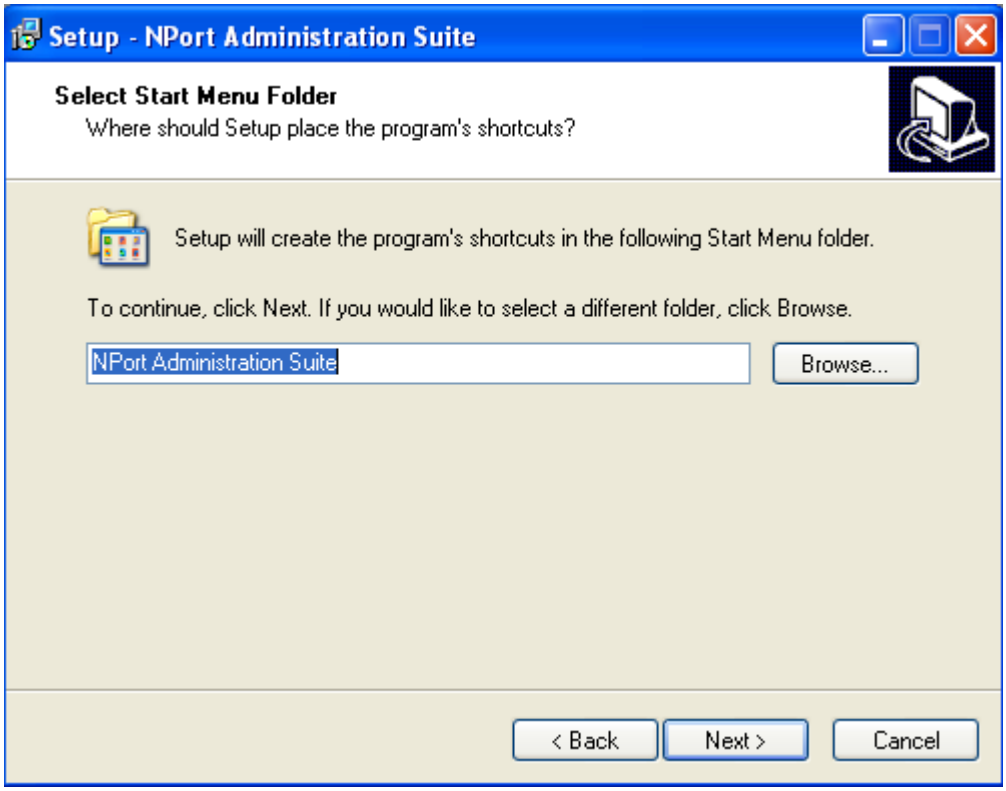
O SOFTWARE E O RESPECTIVO MANUAL SÃO ACTUALIZADOS FREQUENTEMENTE, O CONTEÚDO DO CD QUE OS ACOMPANHA PODE SOFRER VARIAÇÕES.
AS TELAS PODEM SER DIFERENTES DAS APRESENTADAS A SEGUIR, MAS O PROCEDIMENTO É O MESMO.
É ACONSELHÁVEL LER OS FICHEIROS **README.TXT** E **VERSION.TXT** PRESENTES NO CD, TODAS AS ACTUALIZAÇÕES SÃO APRESENTADAS NESTES FICHEIROS.



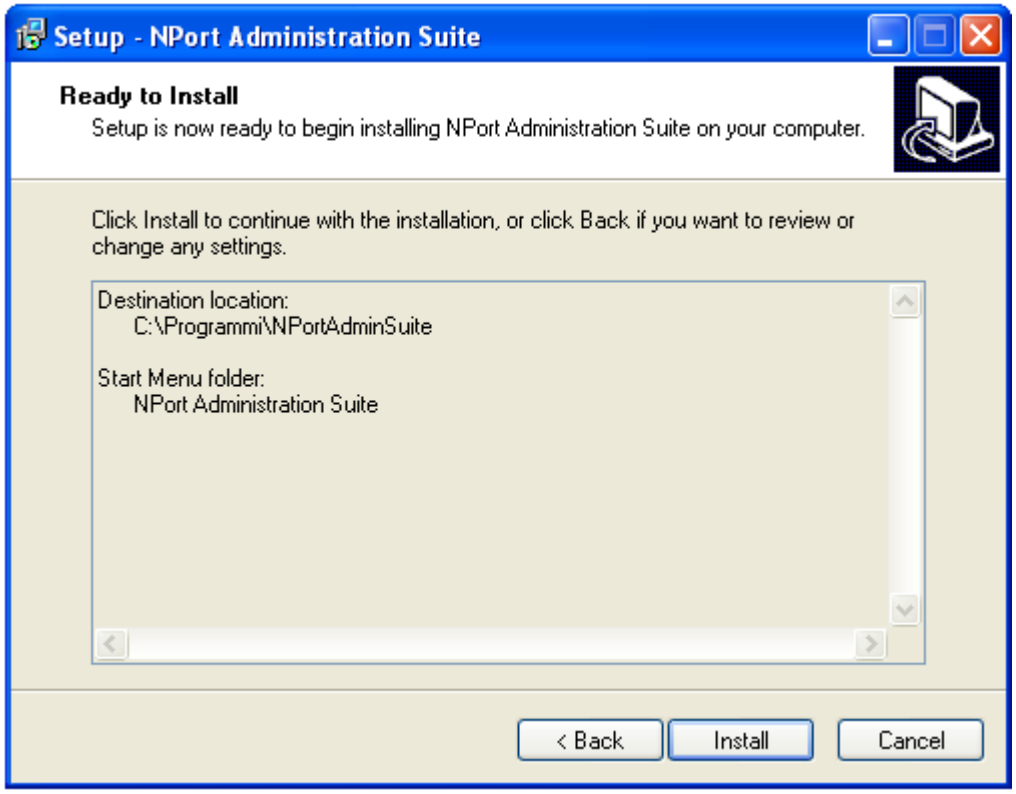
2 Clicar em **Next**



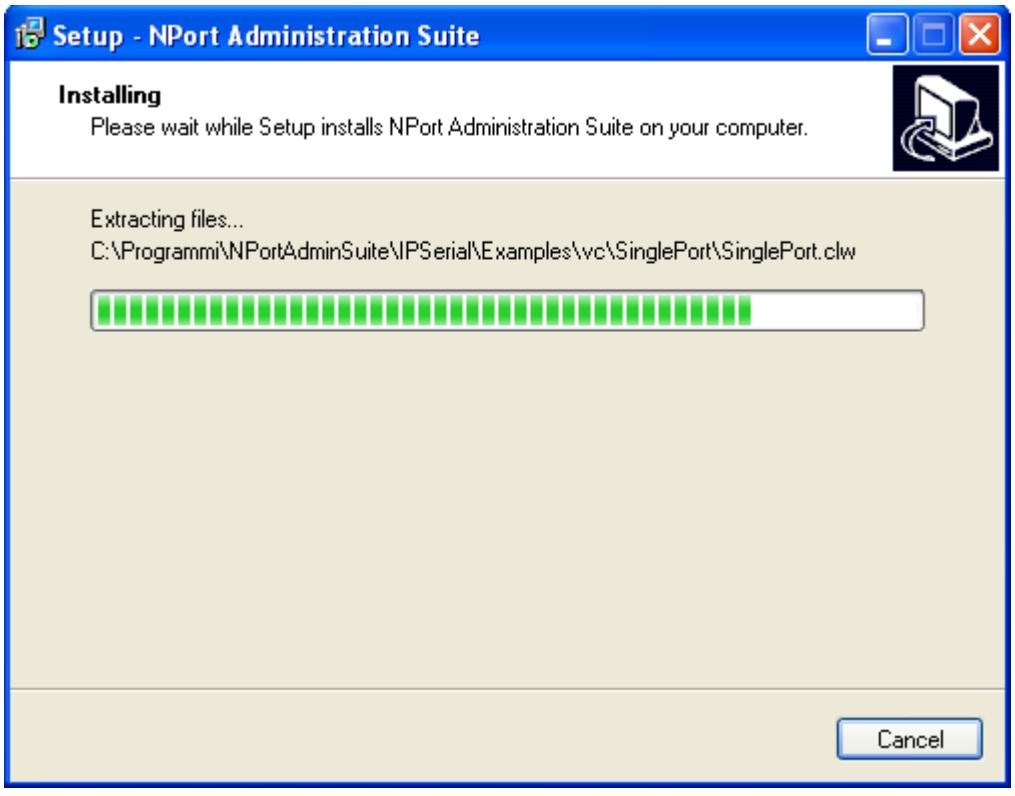
3 Clicar em **Next**
Se desejar modificar o diretório de destinação, pressionar o botão (1); na janela sobreposta seleccionar a pasta desejada.



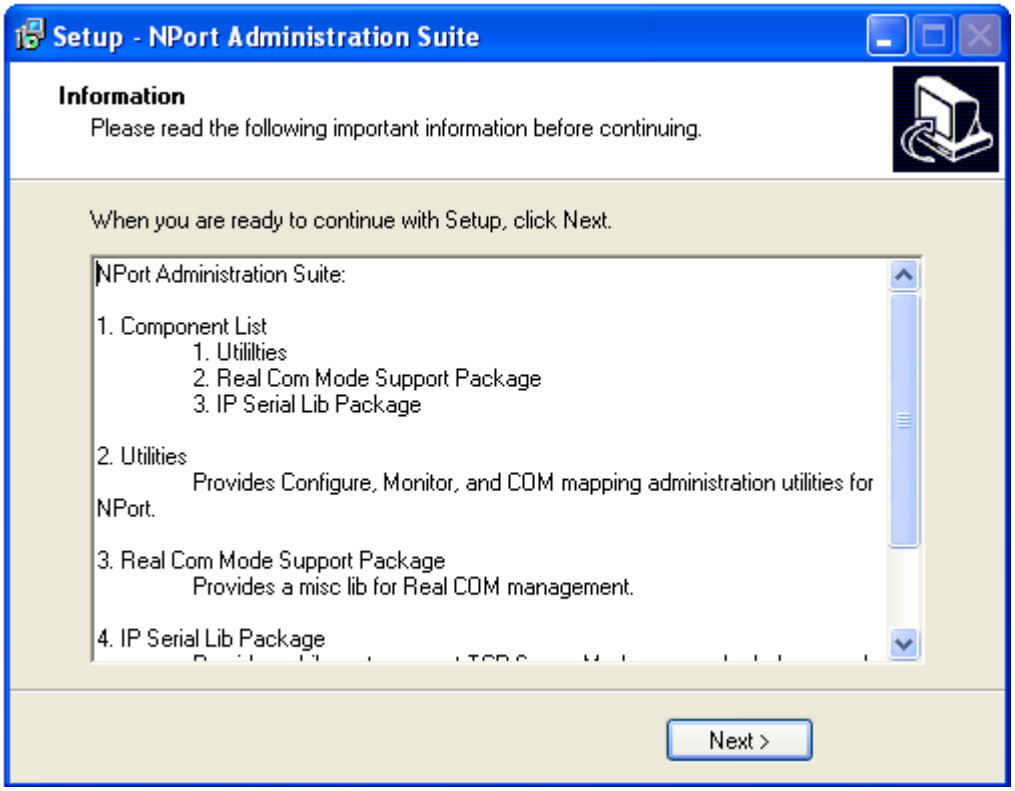
4 Clicar em **Next**



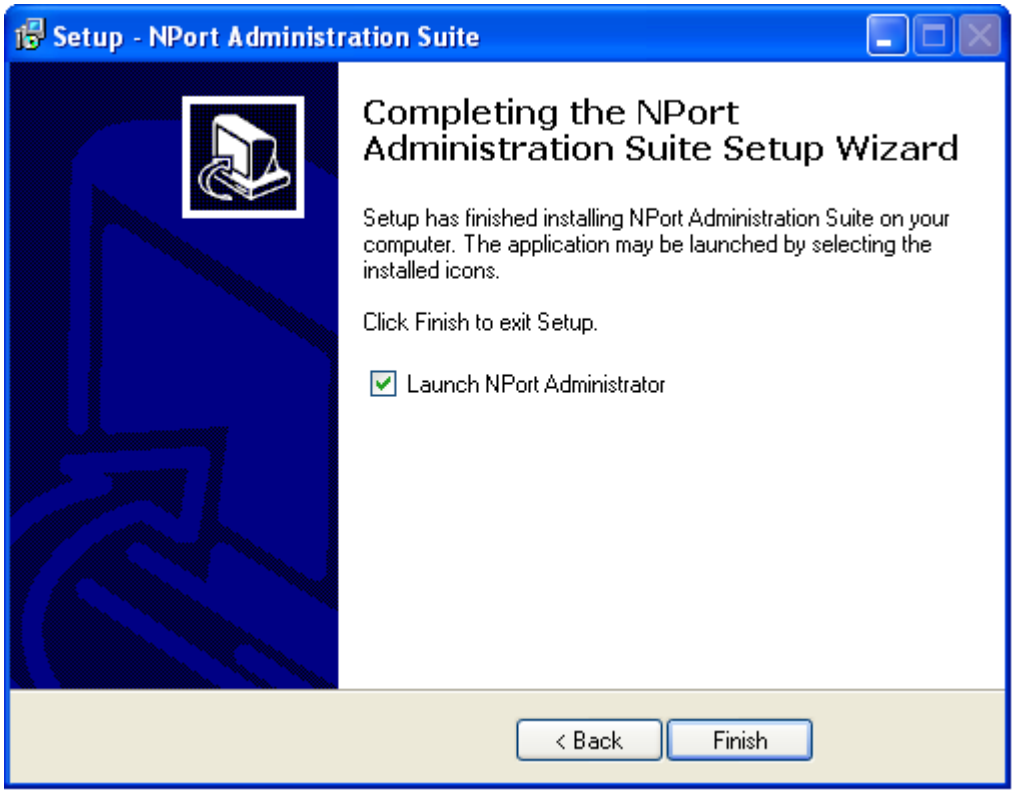
5 Clicar em **Install**



6 A janela indica o avanço da instalação



7 Clicar em **Next**

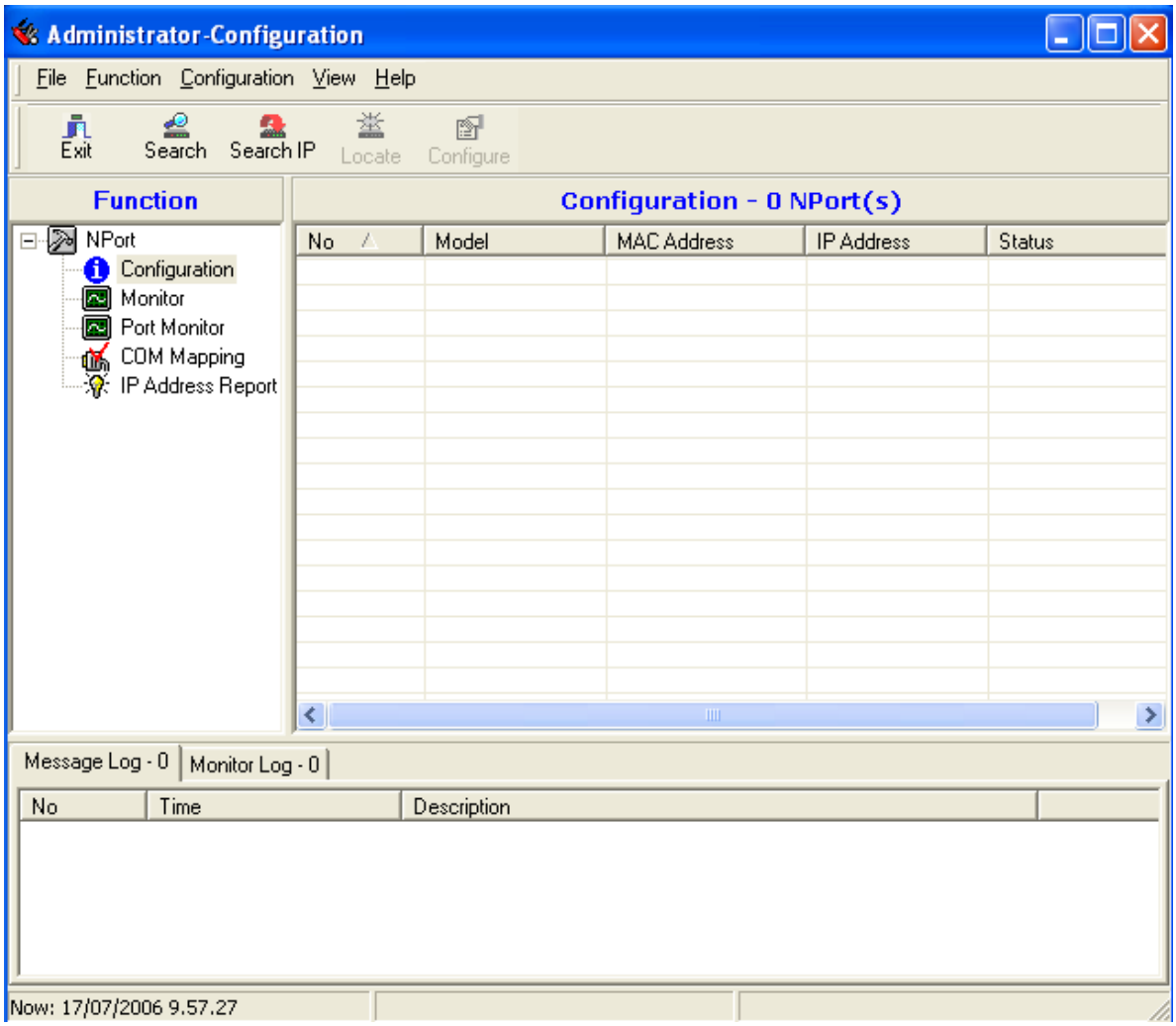


8 **Clicar em Finish** para concluir a instalação e iniciar o programa de configuração

Configuração

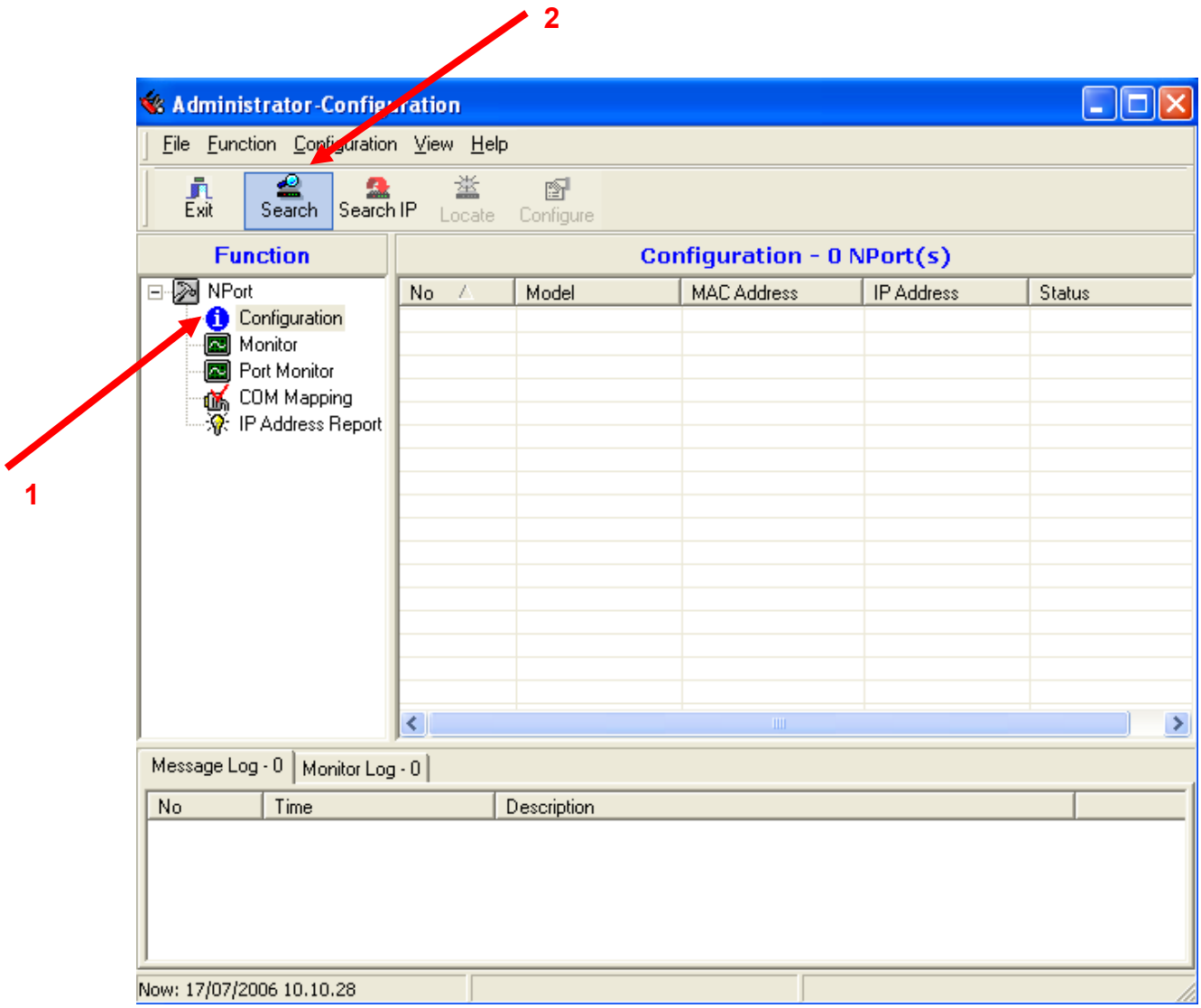
O programa de configuração inicia automaticamente depois da instalação (a seguir os passos do parágrafo anterior). Para iniciar o programa num outro momento é preciso clicar em: **Start => Programas => NPort Administration Suite => NPort Administrator**.

Depois do início do programa, a tela inicial é a seguinte:

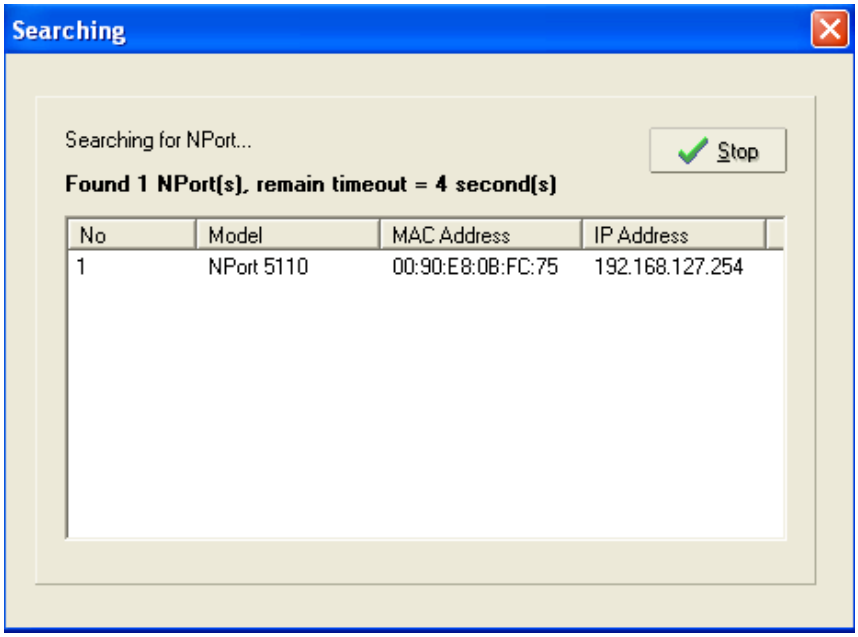


Para configurar é preciso ter instalado a interface, como indicado na secção Instalação. Seguir o seguinte procedimento dentro do programa:

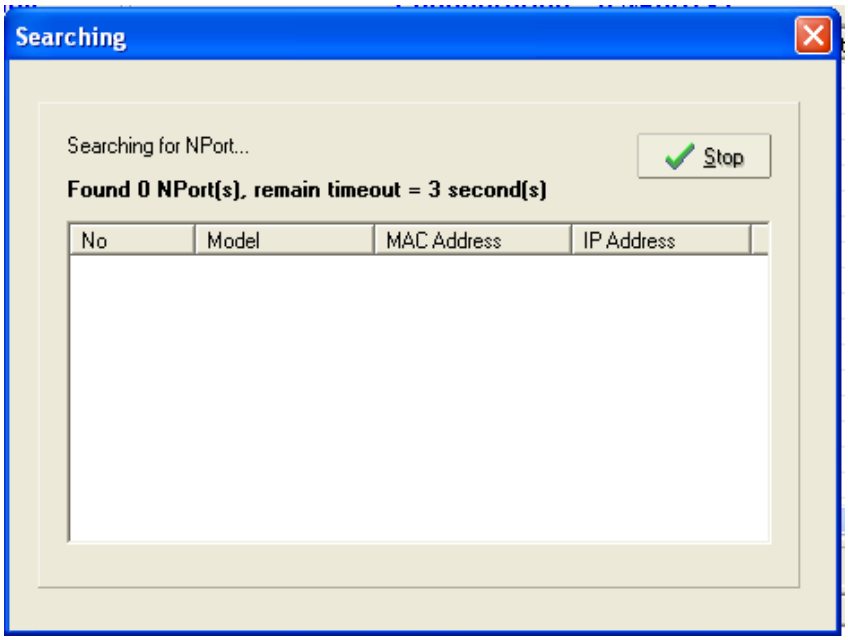
1 Seleccionar Configuration (1) e clicar em Search (2):



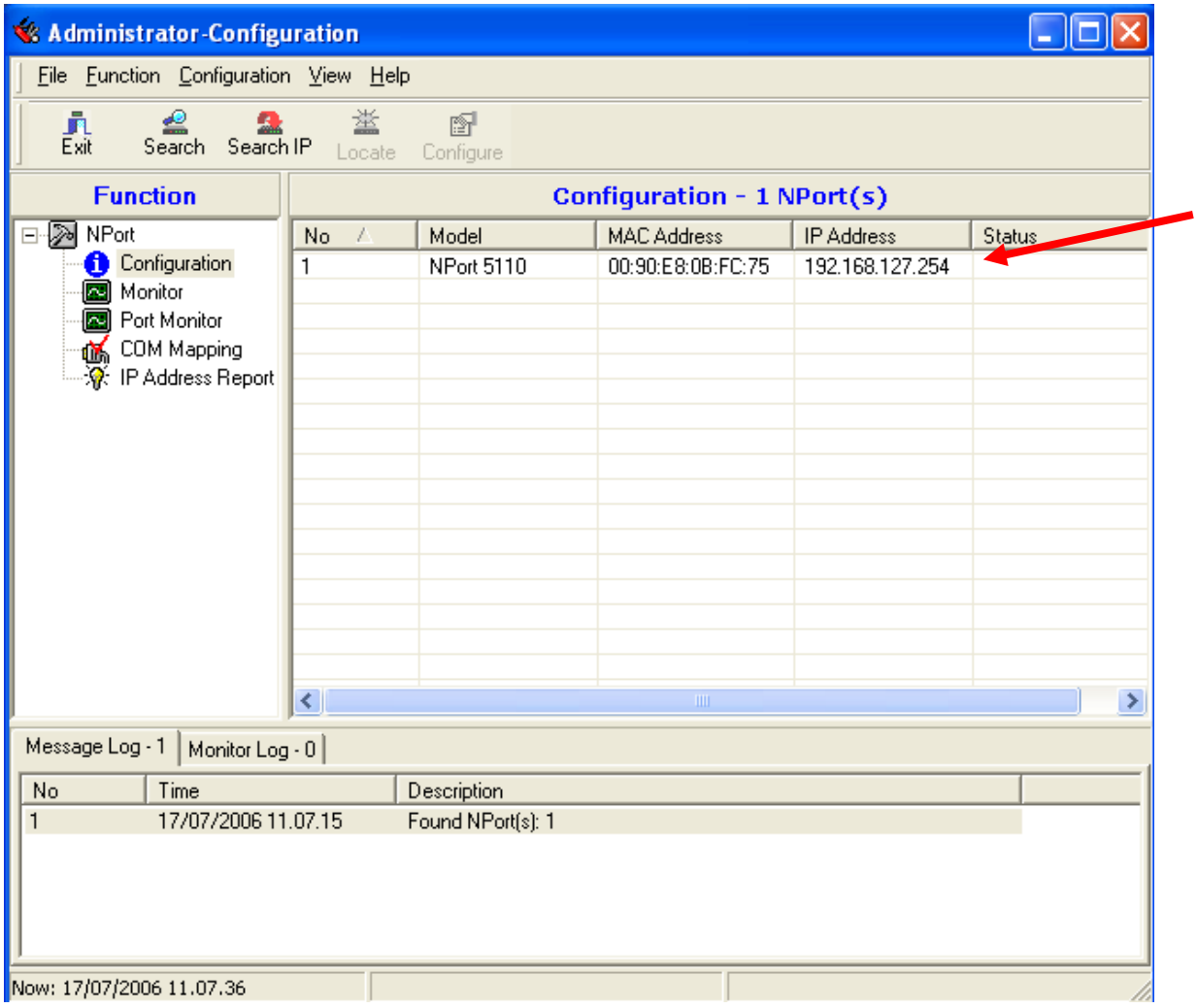
Por alguns segundos, aparece a seguinte janela, a indicar a busca e identificação da interface conectada à rede Ethernet:



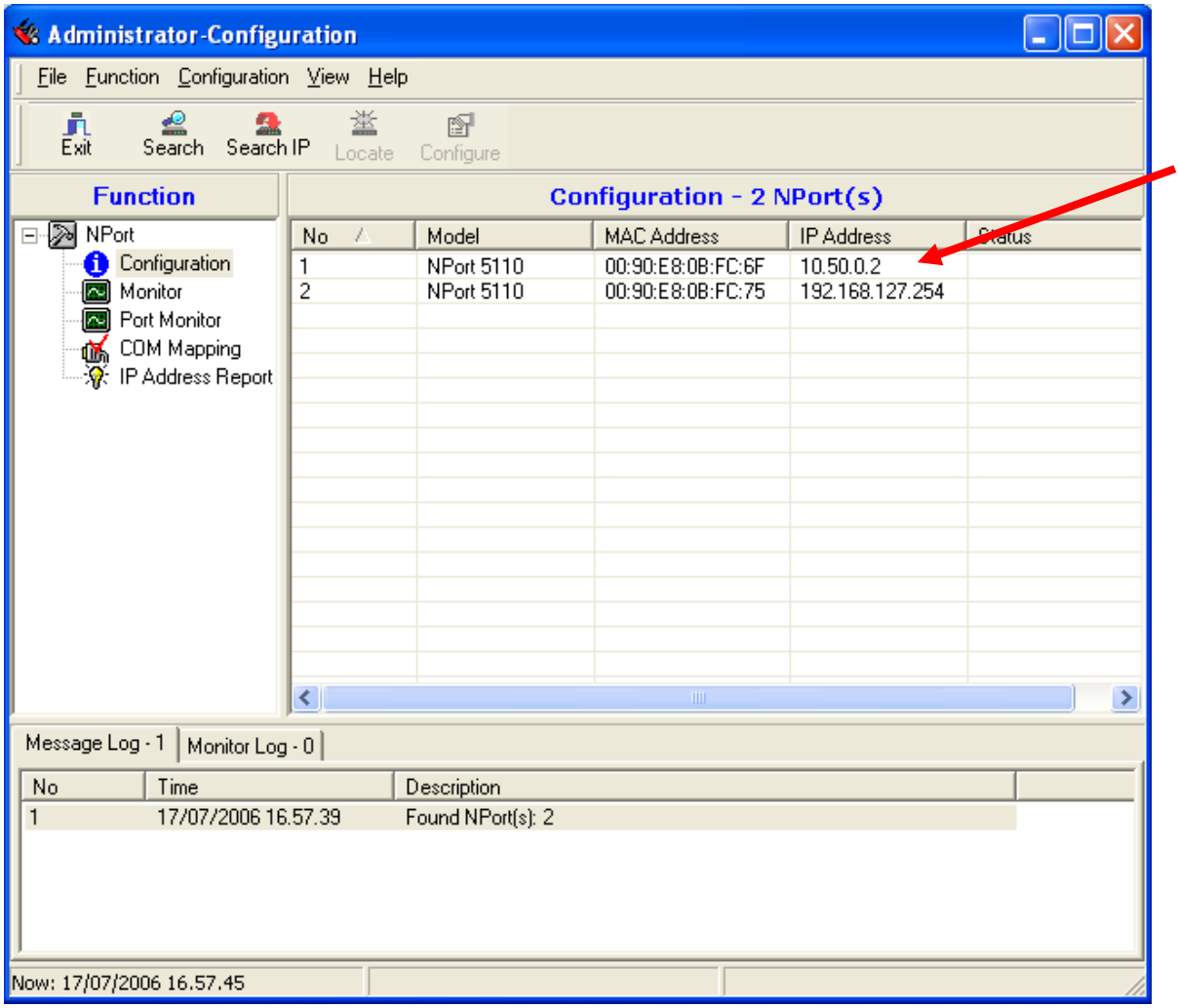
Se a interface não for identificada por não estar alimentada ou conectada à rede Ethernet, a janela fica vazia:



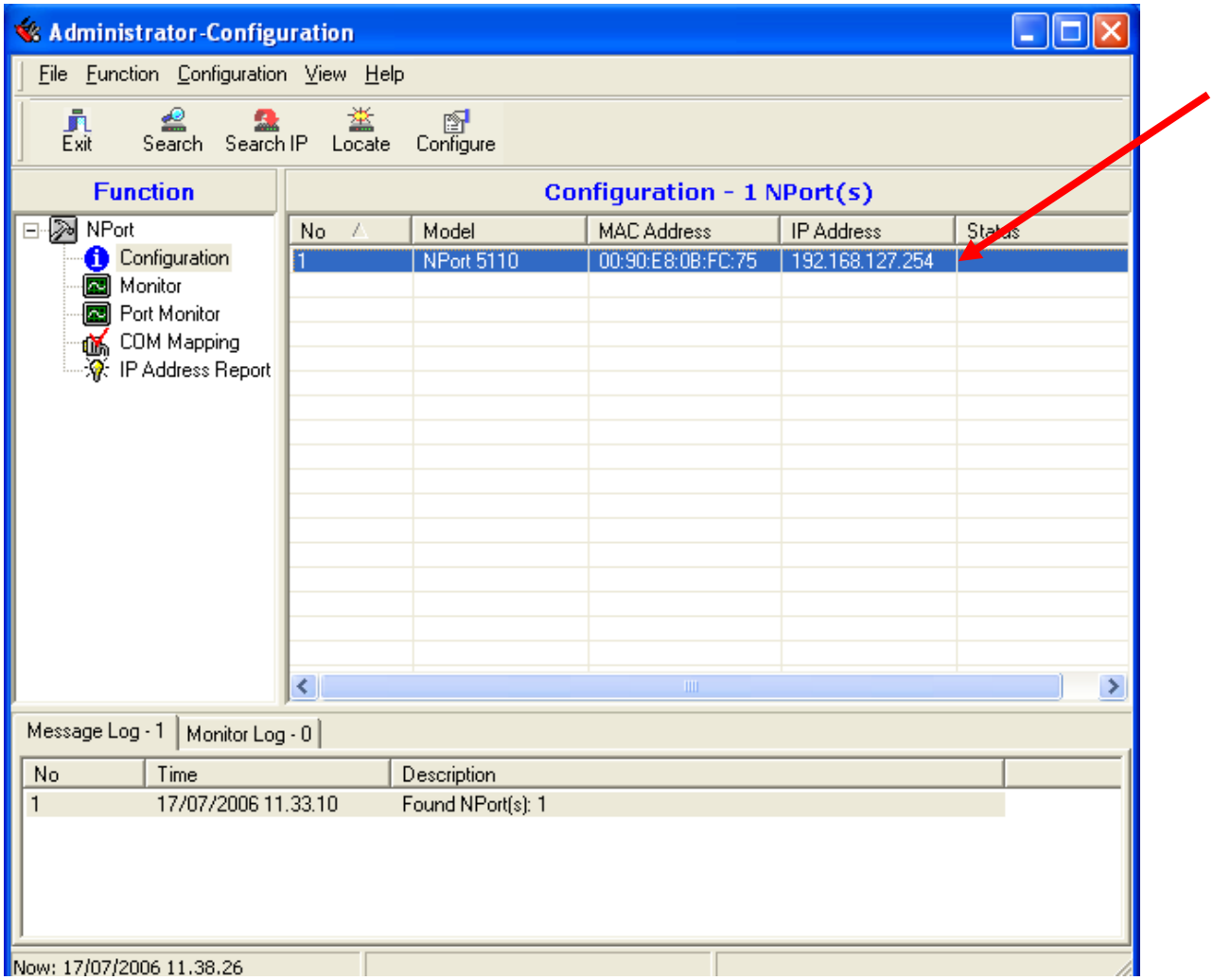
2 A interface conectada à rede Ethernet é indicada na linha em que são resumidas as seguintes informações: Número da interface conectada, Modelo, Endereço MAC, Endereço IP.
Certificar-se de que os dados de Modelo, Endereço MAC e Endereço IP são aqueles indicados na etiqueta de dados técnicos da **Interface RS232/Ethernet**.



Eventuais outras interfaces já conectadas à rede LAN são visualizadas em outras linhas:



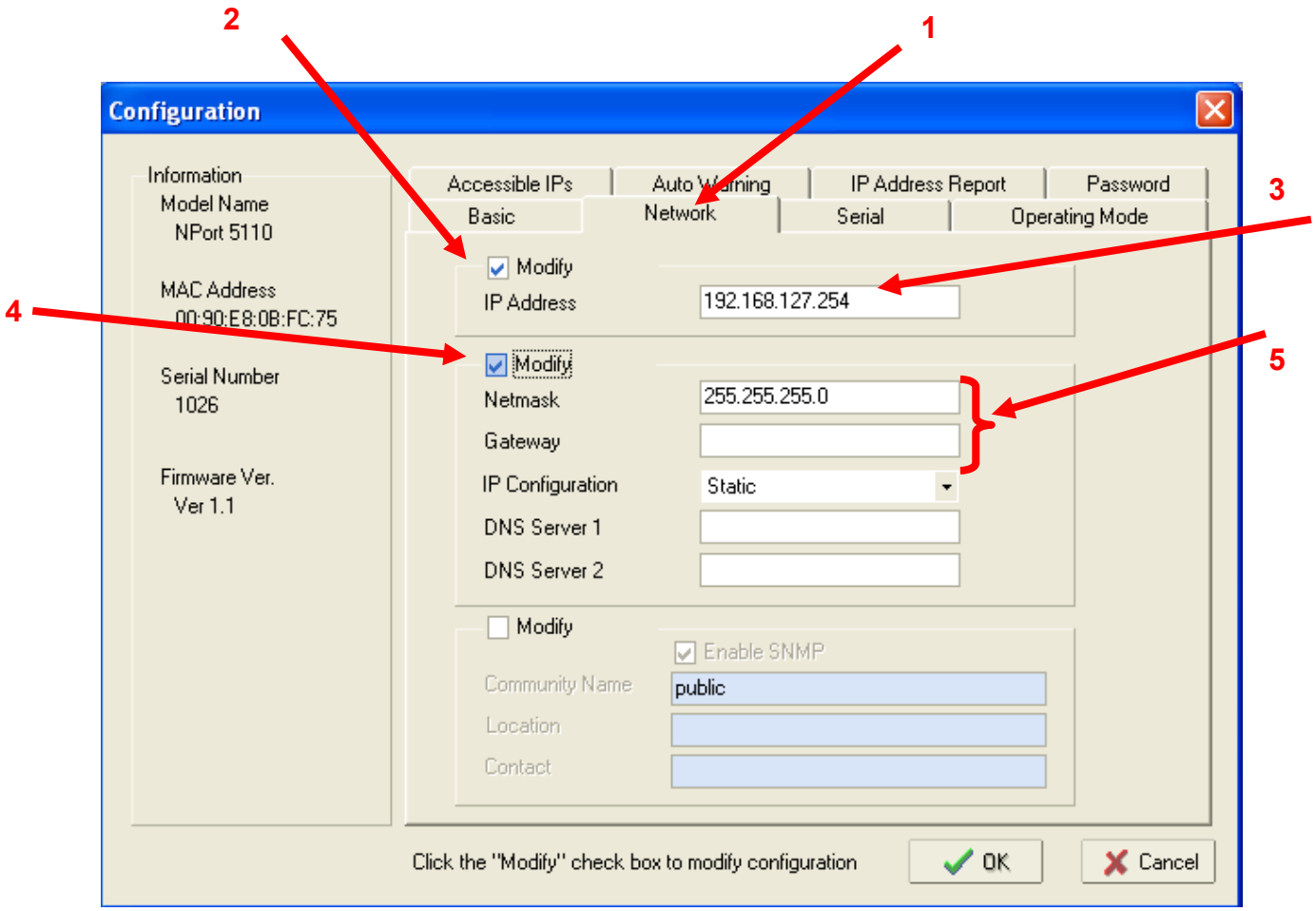
3 A interface é definida inicialmente com parâmetros de rede. Para modificar esses dados, de acordo com a própria rede, é preciso clicar duas vezes na linha da interface conectada:



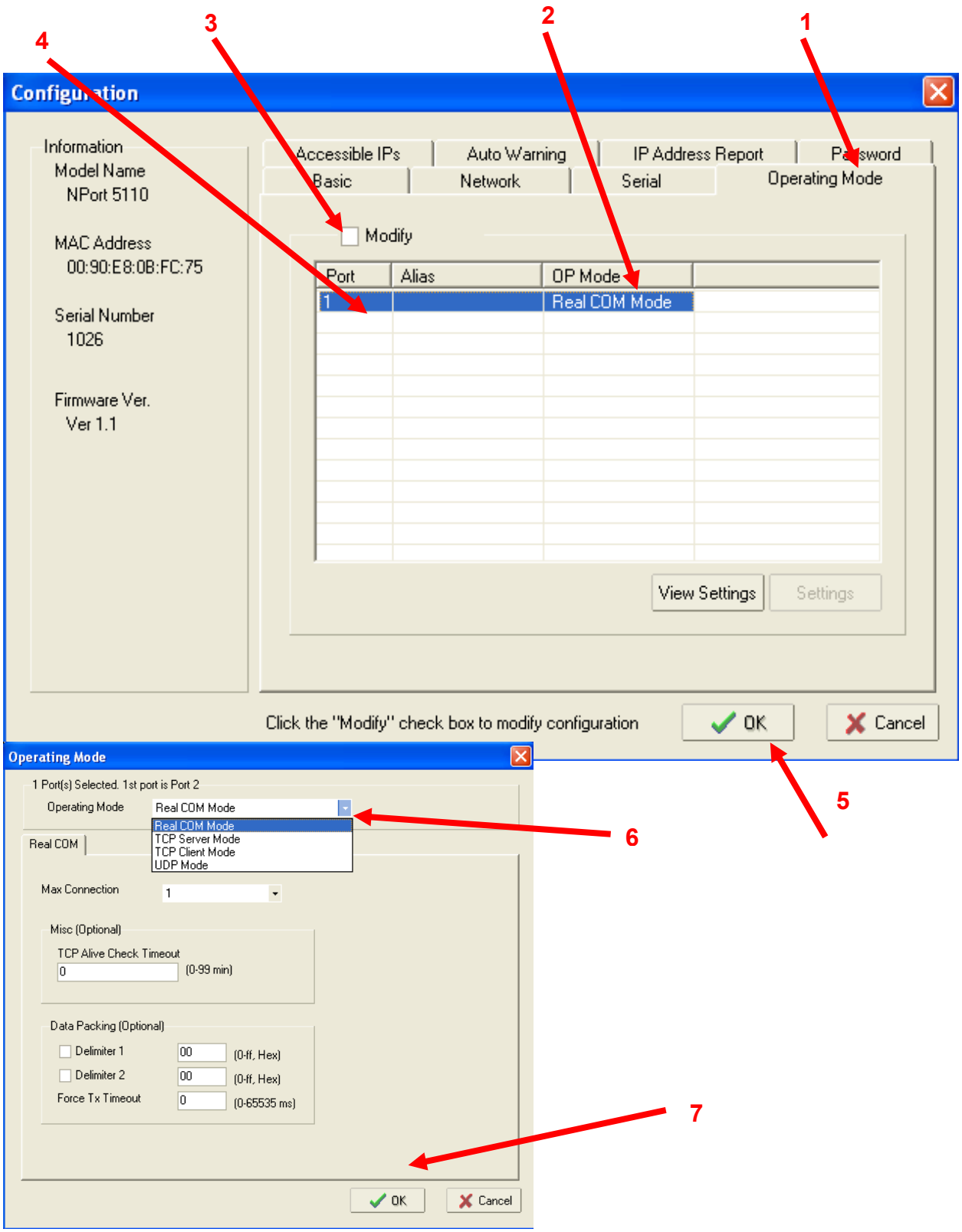
4 Seleccionar a opção Network (1). Clicar em Modify (2) e definir um endereço IP livre da própria rede LAN (3). Clicar em Modify (4) e inserir os outros parâmetros (5).

Nota Consulte o próprio administrador de sistema para obter os parâmetros relativos à rede LAN na qual será instalada a interface:

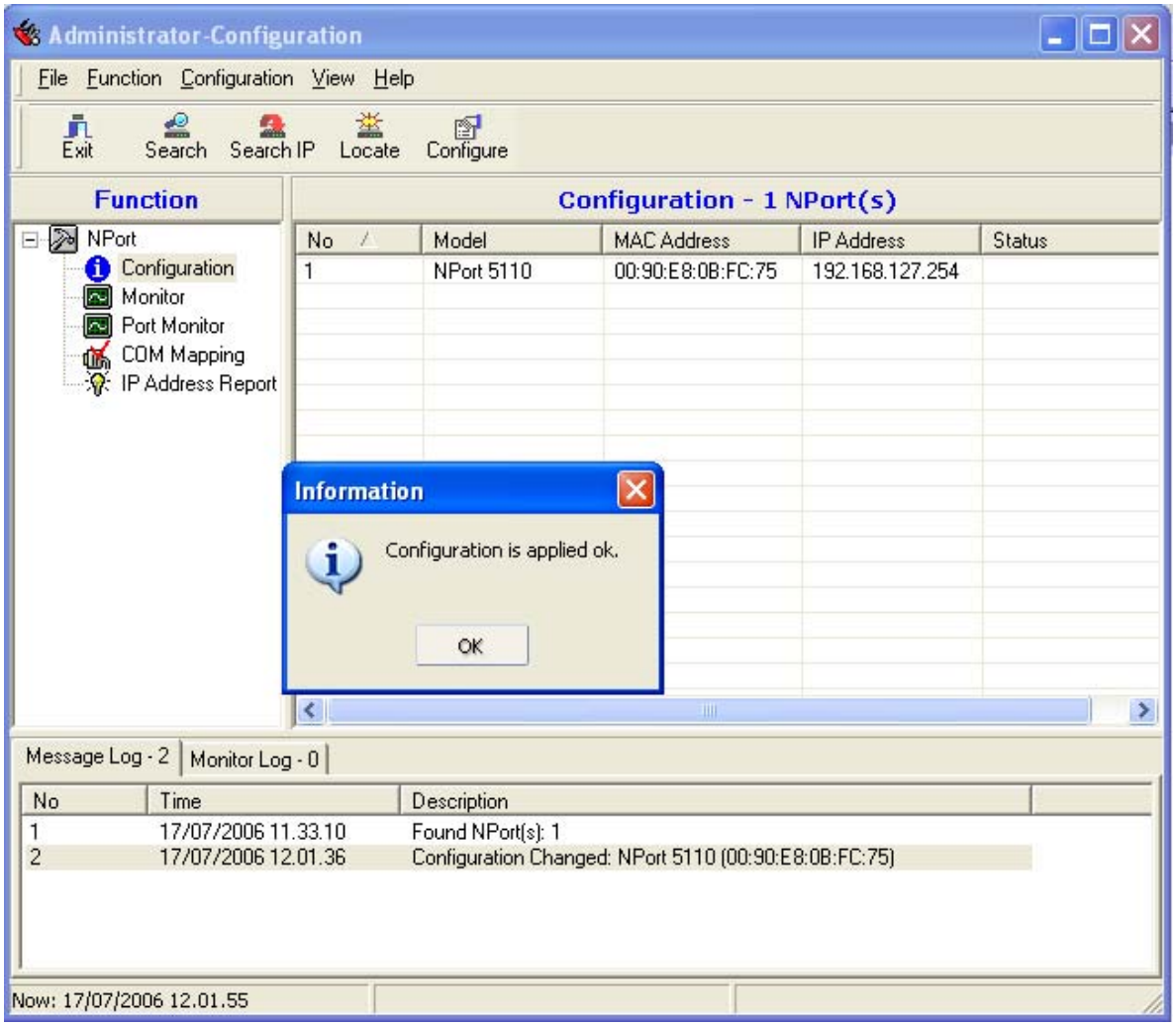
- ENDEREÇO IP
- MÁSCARA DE SUB-REDE (OU NETMASK)
- ENDEREÇO GATEWAY



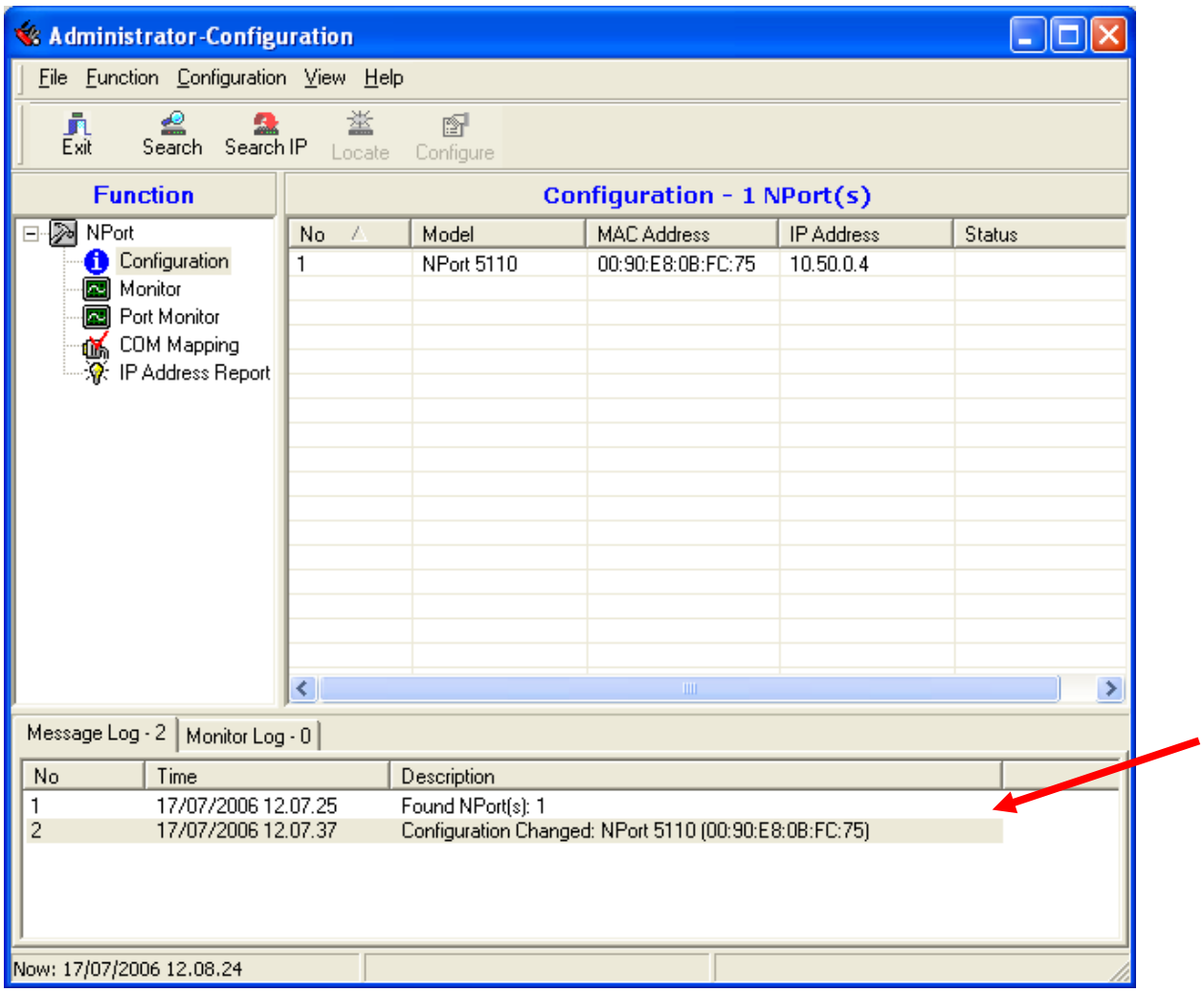
5 Seleccionar a opção Operating Mode (1) e certificar-se de que haja a indicação Real COM Mode (2). Se não houver, apontar a opção Modify (3), clicar duas vezes na linha (4) e, dentro da janela que se abre, marcar o item Real COM Mode (6) em correspondência à linha Operating Mode, a confirmar com OK (7).
Fechar a janela Configuration com OK (5)



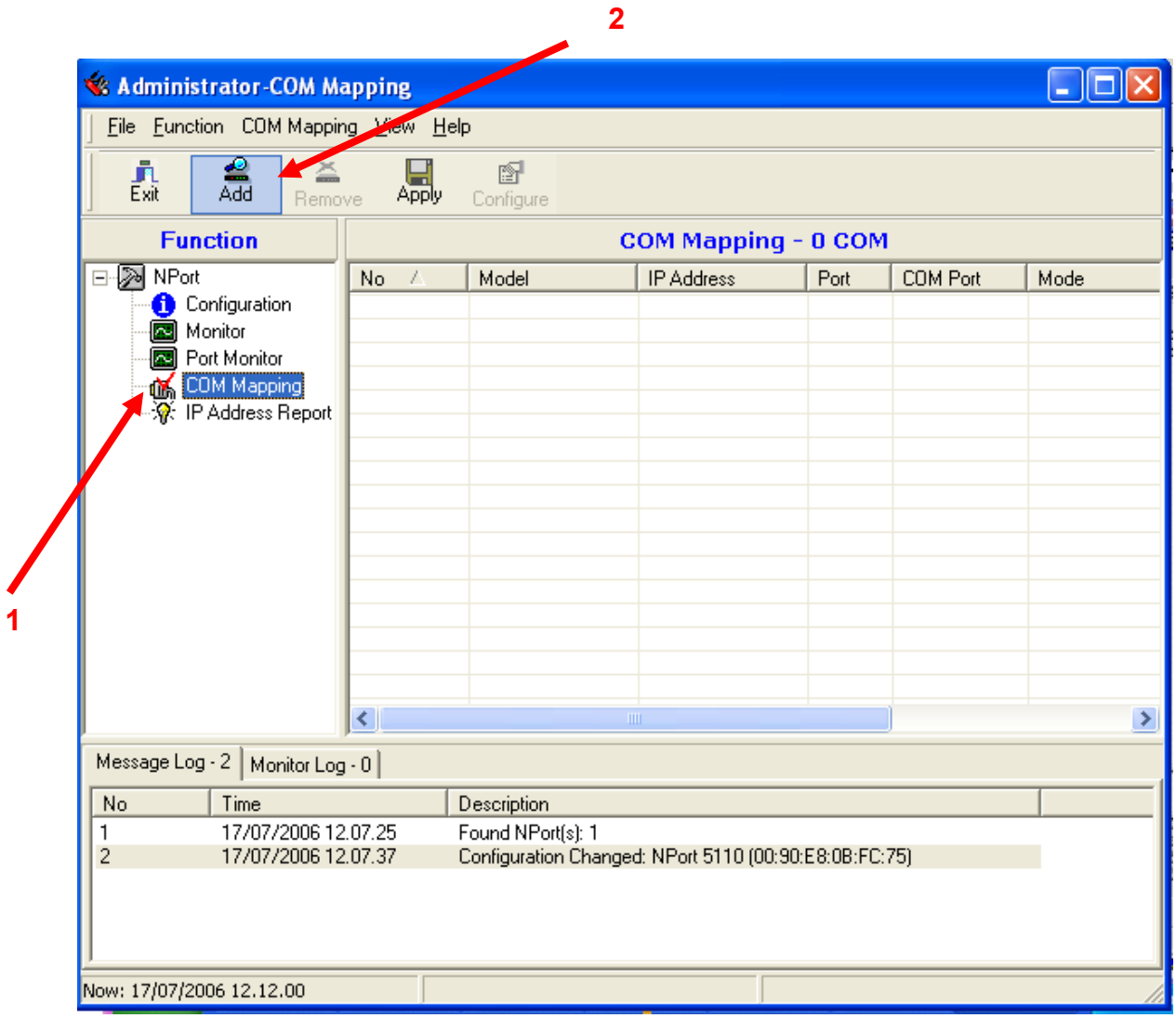
6 A modificação das definições foi confirmada com a seguinte mensagem, pressionar OK.



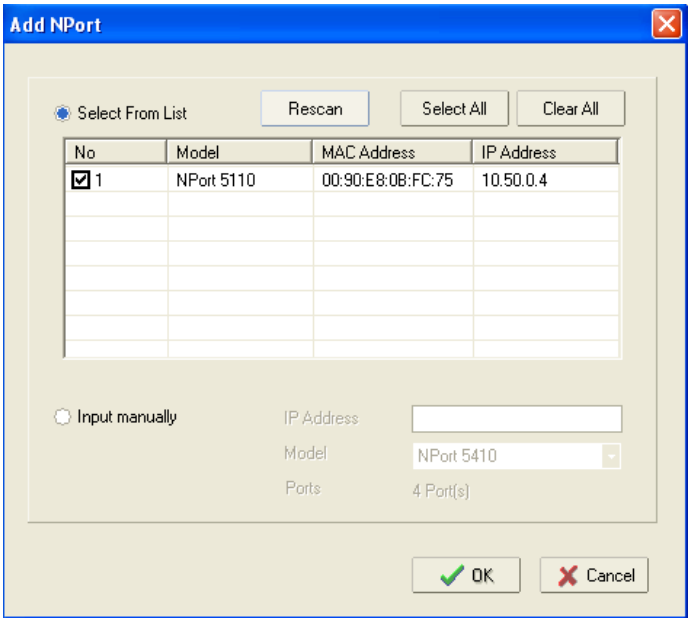
7 A janela de baixo indica a sequência das operações que foram realizadas desde a abertura inicial do programa:



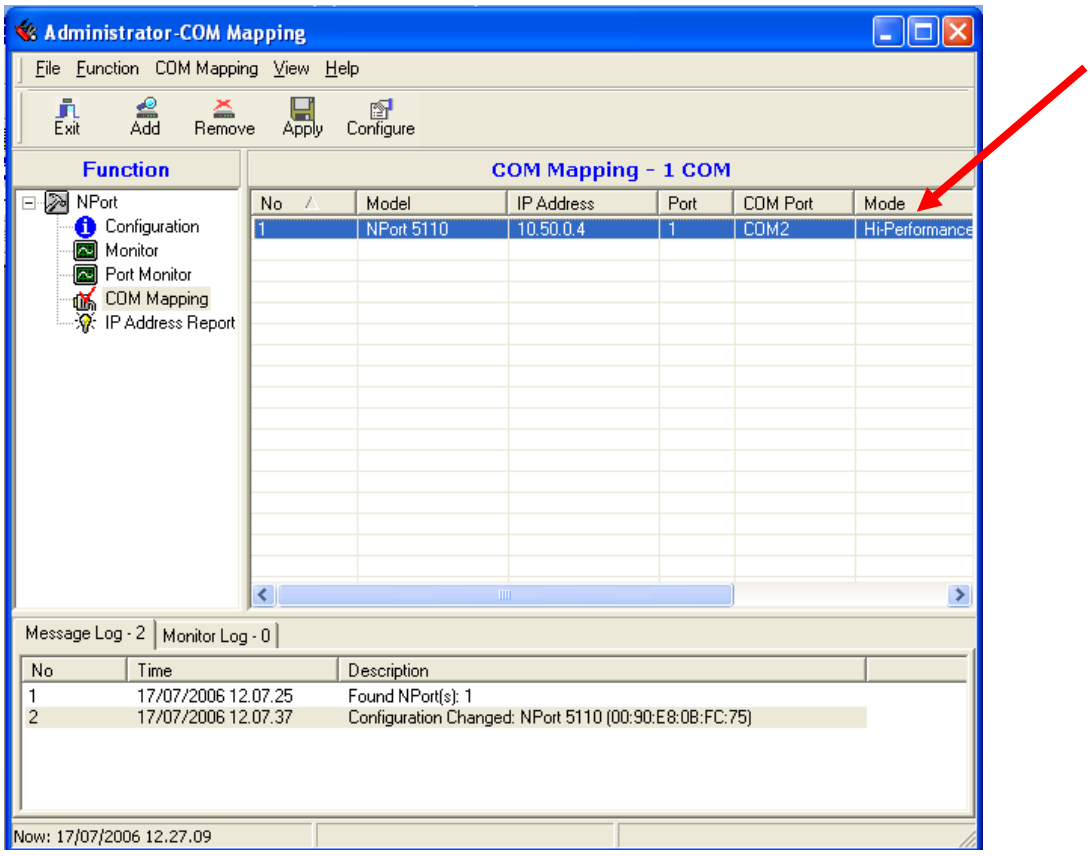
8 Seleccionar o item COM Mapping (1) e clicar em Add (2):



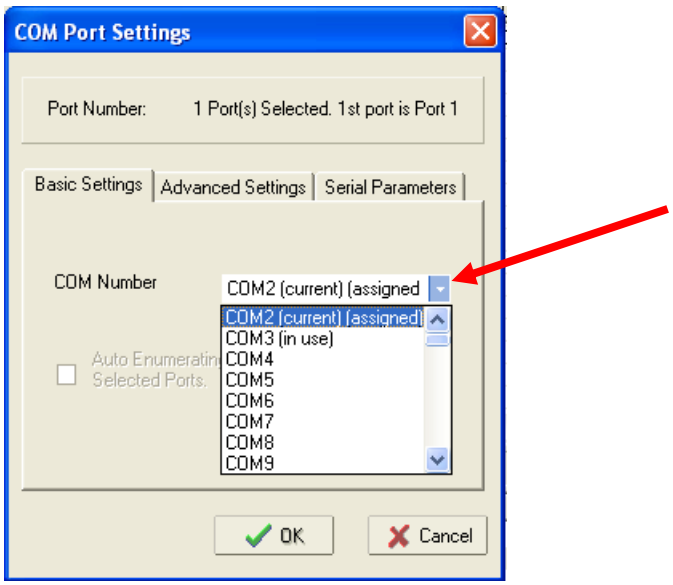
9 Confirmar com OK a adição da interface na configuração da porta serial associada ao dispositivo. Se forem visualizadas várias interfaces, marcar aquela que apresenta o endereço IP indicato anteriormente:



10 O programa associa automaticamente a interface a uma porta serial livre do PC de supervisão. Para modificar a definição, clicar duas vezes na linha do dispositivo adicionado:

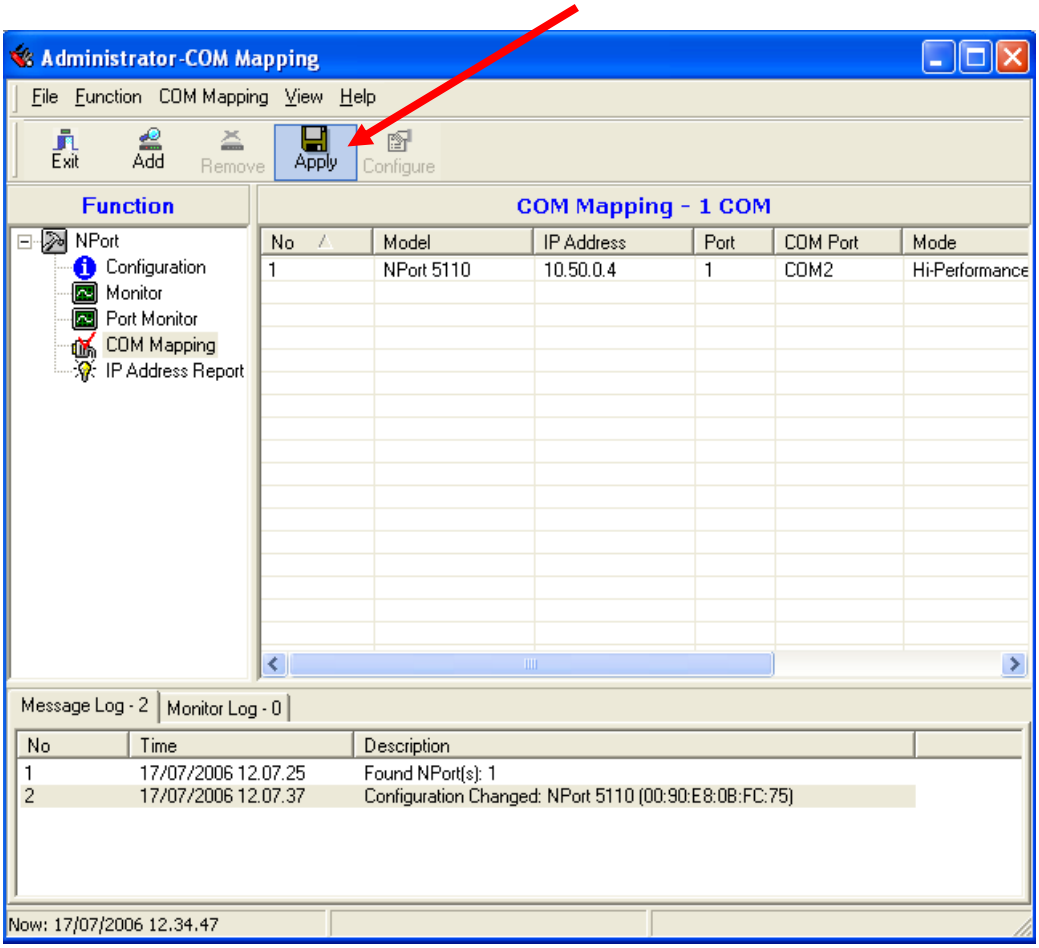


11 Abre-se a seguinte janela. Ao clicar no menu suspenso, seleccionar a porta serial desejada não em uso (sem nenhum comentário entre parêntesis). Pressionar OK para confirmar.

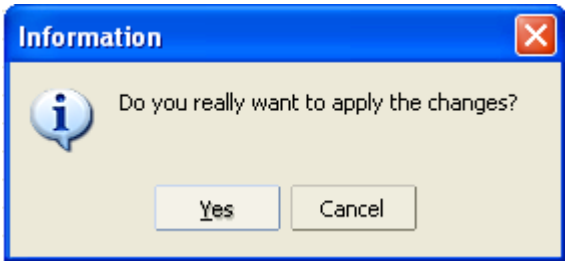


A porta serial escolhida será aquela a usar no programa de supervisão DARDO PC LITE/MAP para fazer a comunicação entre programa e instalação.

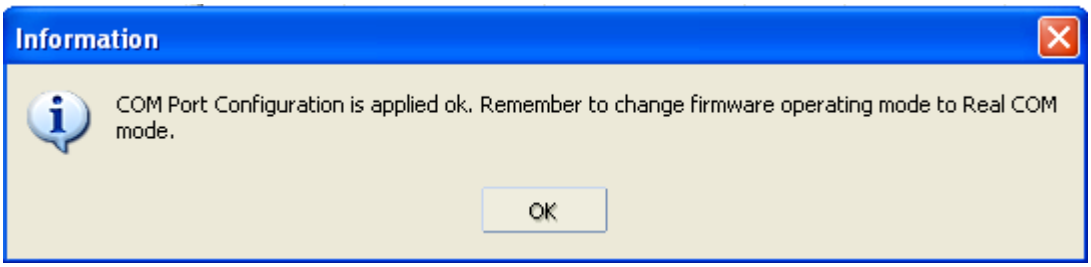
12 No final da atribuição, pressionar Apply para salvar as modificações:



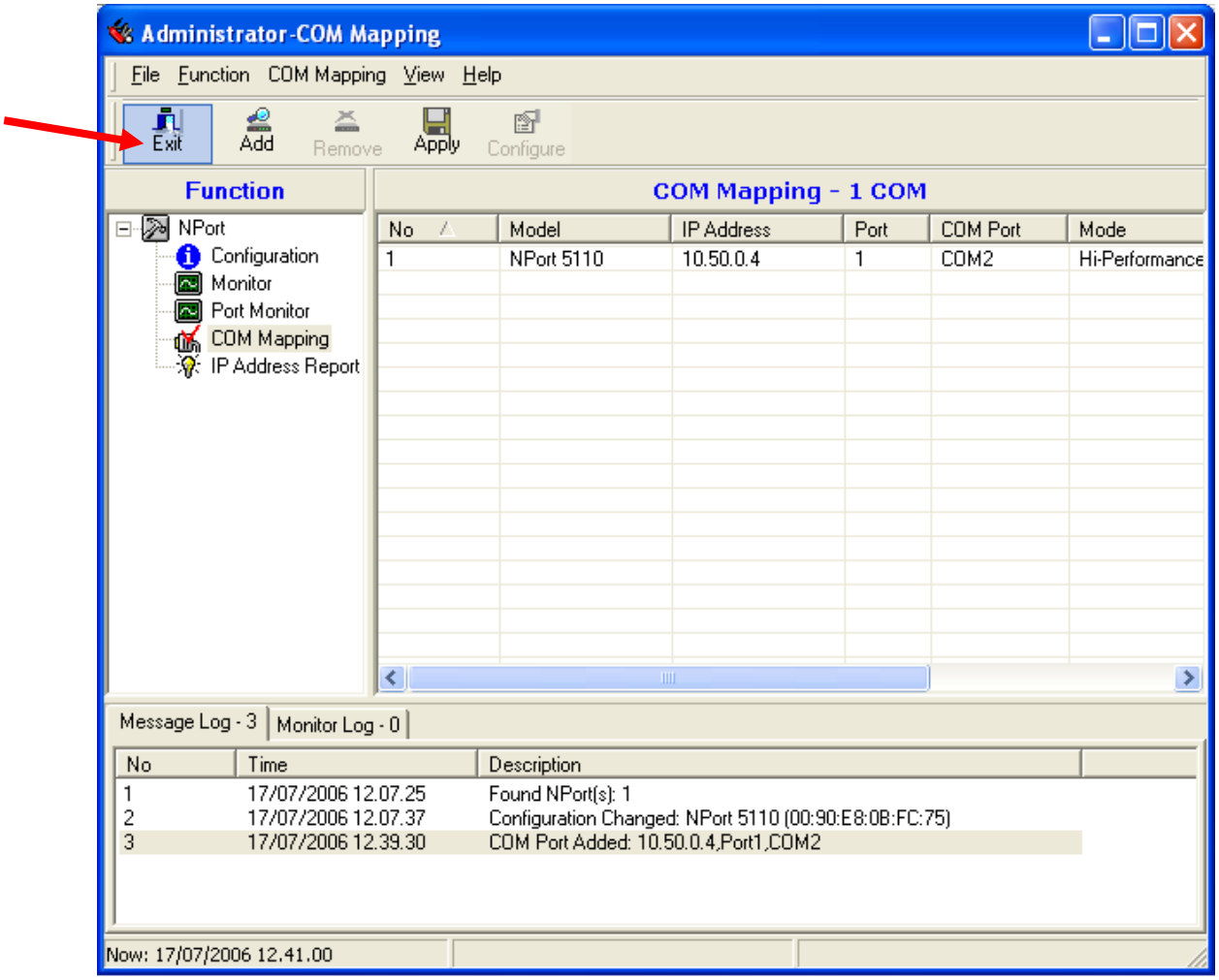
13 Confirmar com Yes:



14 Confirmar com OK:



15 A interface está configurada. É possível sair do programa, clicar em Exit:



Recomendações em caso de problemas de funcionamento entre a interface RS232/Ethernet e PC

- Verificar a compatibilidade entre o programa instalado NPort Administrator Suite e eventuais softwares Antivírus ou Firewall instalados no PC

- Verificar com o comando DOS “ping” se o endereço IP atribuído à Interface RS232/Ethernet não é um endereço duplicado

- Se não for possível alcançar s Interface RS232/Ethernet através do programa NPort Administrator Suite, fazer os seguintes testes:

    - Verificar se a interface pode ser alcançada por um PC conectado ao mesmo HUB/SWITCH ao qual ela está conectada

    - Verificar o alcance do Server ao HUB/SWITCH ao qual a interface está conectada

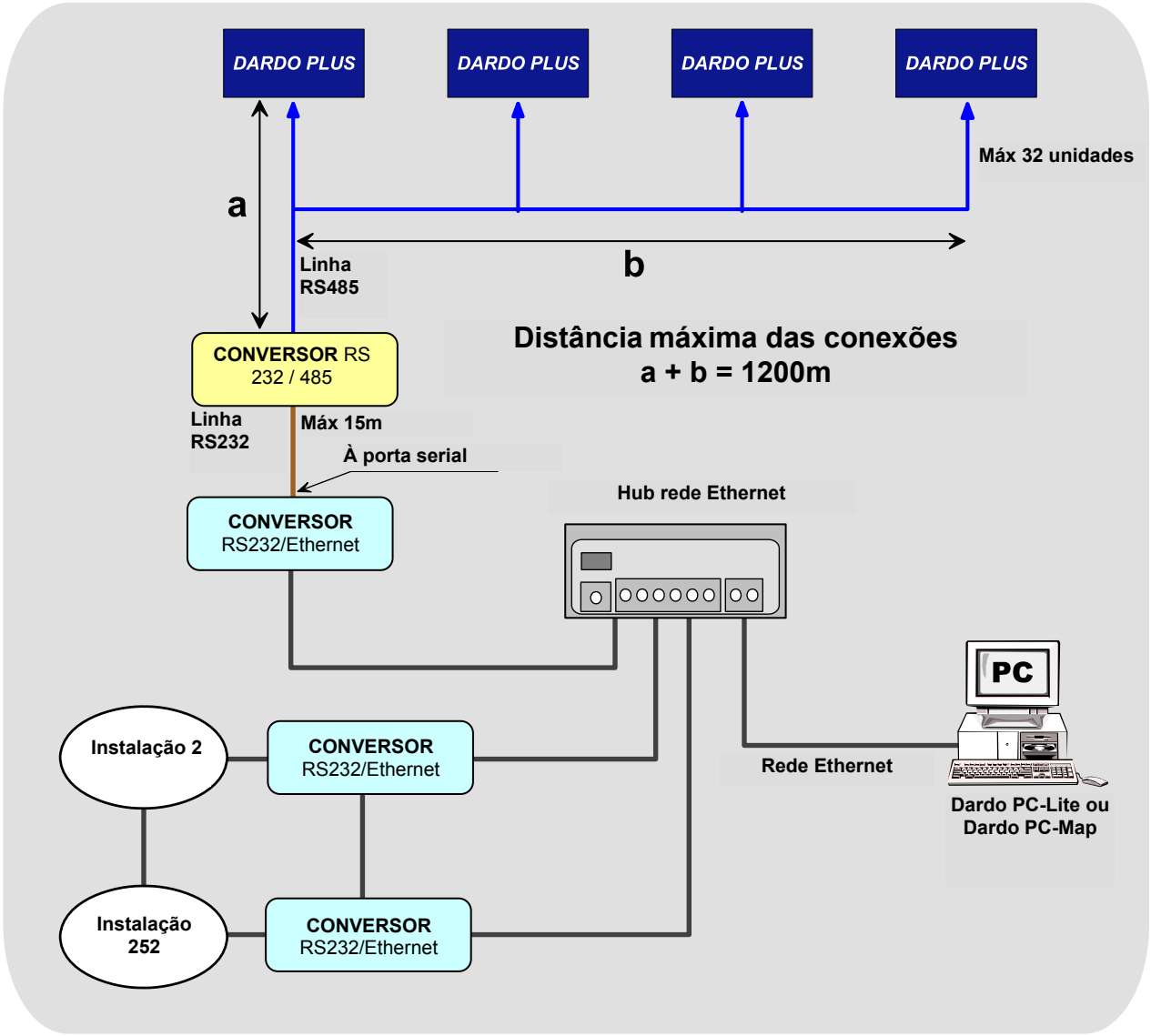
    - Se for possível, cancelar a tabela ARP do HUB/SWITCH ao qual a interface está conectada ou em caso extremo, reiniciar o HUB/SWITCH e refazer os testes de alcance

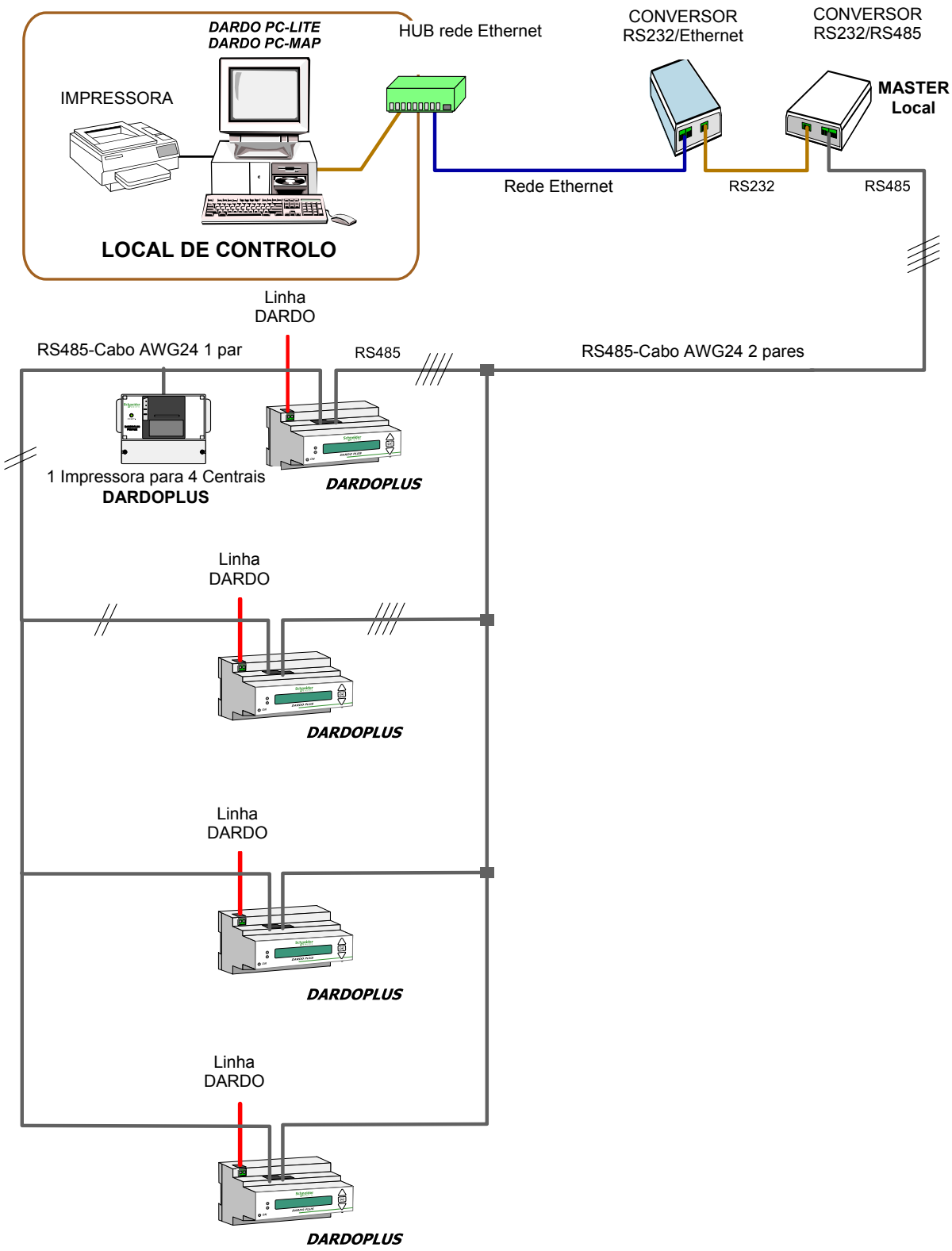
Apêndices

Distâncias máximas de cabeamento

Nota: O sistema de supervisão pode monitorar até 256 instalações de luzes de emergência (menos o número de portas seriais do PC).

Exemplo de sistema de supervisão




DARDO PC-LITE
DARDO PC-MAP
IMPRESSORA
HUB rede Ethernet
CONVERSOR
RS232/Ethernet
CONVERSOR
RS232/RS485
MASTER
Local
Rede Ethernet
RS232
RS485
LOCAL DE CONTROLO
Linha
DARDO
RS485-Cabo AWG24 1 par
RS485
RS485-Cabo AWG24 2 pares
1 Impressora para 4 Centrais
DARDOPLUS
DARDOPLUS
Linha
DARDO
DARDOPLUS
Linha
DARDO
DARDOPLUS
Linha
DARDO
DARDOPLUS

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Předmluva

Tuto část příručky je třeba si přečíst dříve než jinou dokumentaci a před prováděním jakéhokoliv zásahu na výrobku.

Rozhraní RS232/Ethernet bude řádně fungovat pouze na pohotovostních přístrojích SCHNEIDER ELECTRIC.

Návod k použití

Komu je určen

Tato příručka je určena instalačním technikům, kteří mají dostatečné znalosti k tomu, aby mohli bezpečně provádět zásahy na hardwarových a softwarových systémech.

Důležitost této příručky

Tato příručka obsahuje informace nutné k provedení instalace a k použití **rozhraní RS232/Ethernet.**

Je zakázáno tuto příručku nebo její části jakýmkoliv způsobem reprodukovat a předávat třetím osobám bez písemného svolení firmy SCHNEIDER ELECTRIC.

Firma SCHNEIDER ELECTRIC si vyhrazuje právo na provádění změn za účelem vylepšení svých výrobků, a to i bez předchozího upozornění. Následkem toho by se mohlo stát, že ilustrace uvedené v příručce nebudou úplně odpovídat dodanému přístroji.

Zkontrolovat, zda všechny případné úpravy či aktualizace příručky výrobcem byly do této příručky vloženy a včleněny.

Uchování příručky

Příručku je třeba uchovávat po celou dobu životnosti přístroje, aby mohla být v případě potřeby konzultována a k dispozici pro případné další zásahy a instalace.

Použité symboly

V příručce je použita řada symbolů, které slouží k tomu, aby upozornily na rady, poznámky, předpisy a normy týkající se řádného způsobu použití a bezpečnosti aplikace a rovněž fyzické bezpečnosti obsluhy.

Následující odstavce podávají přehled hlavních symbolů.

Všeobecné poznámky:

POZNÁMKA NEBO VŠEOBECNÁ PRACOVNÍ NORMA

Předpisové signály (obdélníkový tvar):

POVINNOST ROZDĚLIT ELEKTRICKÉ NAPÁJENÍ DO ÚSEKŮ (OTEVŘÍT HLAVNÍ VYPÍNAČ).

Signály upozorňující na nebezpečí pro osoby a/nebo pro přístroj (trojúhelníkový tvar):

VŠEOBECNÉ NEBEZPEČÍ PRO OSOBY A/NEBO PRO PŘÍSTROJ

ELEKTRICKÉ NEBEZPEČÍ PRO OSOBY A/NEBO PRO PŘÍSTROJ (ZABITÍ ELEKTRICKÝM PROUDEM)

Upozornění

- ✓ Budete-li potřebovat technické informace o instalaci či o použití výrobku nebo v případě poruchy na výrobku, se obraťte na firmu SCHNEIDER ELECTRIC.
- ✓ Instalace nebo opravné zásahy na přístroji musí být prováděny kvalifikovaným personálem, v souladu s platnými místními normami a na místě, kde se nevyskytuje prach a vlhkost.
- ✓ Zavést systém úseků nad připojení napájení.
- ✓ **Aby byla zaručena bezpečnost osob a řádné fungování rozhraní RS232/Ethernet, je NEZBYTNÉ provést účinné uzemnění podle platných norem.**
- ✓ Před jakýmkoliv zásahem údržby odpojit přístroj ze sítě
- ✓ **Obrázek přeškrtnuté popelnice na přístroji označuje, že výrobek je třeba odevzdat do speciálních sběren, které mají povolení k provádění likvidace správným způsobem napomáhajícím k ochraně životního prostředí a zdraví člověka. Informace o specializovaných sběrnách a o platných zákonech Vám podá příslušný orgán místní správy.**

POZOR:
NEDODRŽENÍ INSTRUKCÍ K INSTALACI A POUŽITÍ PŘÍSTROJE VEDE K POZBYTÍ PRÁVA NA ZÁRUKU.

Bezpečnost

- **Rozhraní RS232/Ethernet musí být nainstalováno** na místě, kde se nevyskytují prach, vlhkost ani agresívní výpary.
- Jakýkoliv zásah instalace a/nebo údržby musí být prováděn **s odpojeným elektrickým napájením**.
  Z dohoto důvodu je třeba zajistit zařízení úsekového rozdělení na začátek napájení přístroje.
- Používat pouze napáječ, který je součástí vybavení a který je dodáván spolu s přístrojem.

- Zkontrolovat, zda je uzemnění napáječe bezpečné a účinné.
- Řádné fungování rozhraní RS232/Ethernet bude zajištěno pouze tehdy, jestliže bude použito s pohotovostními přístroji SCHNEIDER ELECTRIC.

Obsah balení

Otevřít balení a zkontrolovat, zda je dodávka úplná:

(1) **Rozhraní RS232 / Ethernet**
(2) Napáječ 230 Vac/12 Vdc
(3) CD obsahující konfigurační software a dokumentaci k výrobku
(4) Návod k použití a údržbě

Všeobecný popis

Rozhraní RS232/Ethernet umožňuje přenést na fyzickou síťovou podporu Ethernet dialog mezi řídícím **PC** a systémy ovládání a řízení osvětlovacích pohotovostních sítí série **DARDO**.

Předpokládané použití

Roz**hraní RS232/Ethernet** se používají v řídících systémech tvořených:

- **PC** na vzdáleném stanovišti s operačním systémem **MS Windows 98** nebo vyšším, konfiguračním softwarem **Nport Administrator Suite** a softwarem pro monitorování a řízení **DARDO PC LITE**.
  Pozn.: software a příslušná příručka jsou často aktualizovány. Obsah CD se může měnit.

  Doporučujeme si přečíst soubor **Readme.txt** a **Version.TXT**, které se nacházejí na CD. Tyto soubory obsahují všechny aktualizace.

- Řídící jednotky DARDOPLUS.

Každý řídící systém se může skládat z 256 zařízení minus počet sériových portů PC.
Každé zařízení se skládá z jednoho **rozhraní RS232/Ethernet** a z jednoho **konvertoru RS232/485,** připojených maximálně na 32 řídících jednotek.

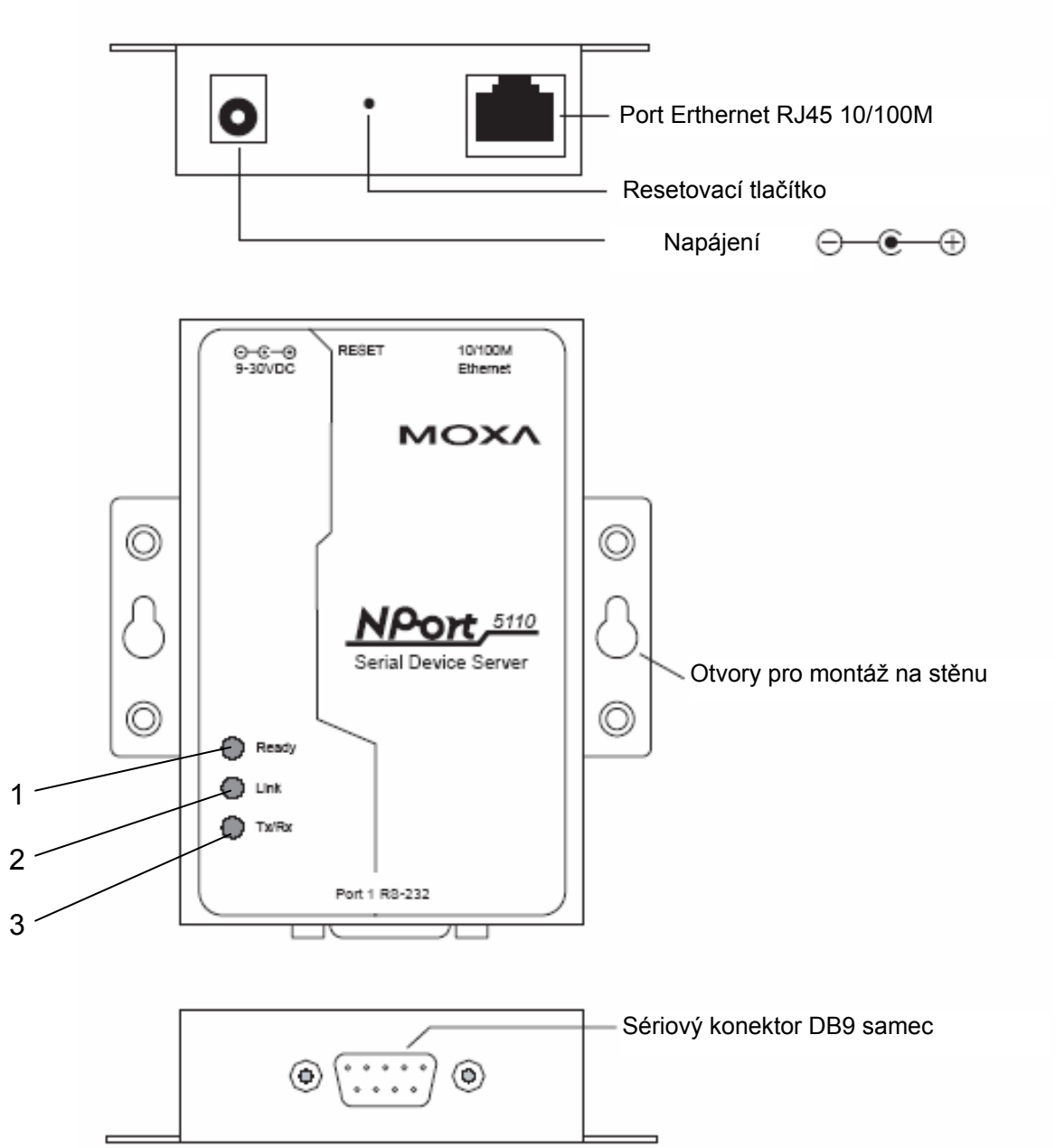
Technická data

Rozhraní RS232 / Ethernet

Všeobecné parametry

- Napájení: 9 – 30 Vdc
- Absorpce: 200 mA (9V); 165 mA (12V)
- Rozptýlený výkon: 1,8 (9V): 1,98W (12V)
- Sériový port: RS232 (9 pólů)
- Port Ethernet: 10/100 Mbps (konektor RJ-45)
- Připojovací kabel RS232: AWG24*
- Krabice: Hliník (1 mm)
- Rozměry (Šíř. x Výš. x Hl.): 75,2 x 80 x 22 mm (s upevňovacími držáky)
  52 x 80 x 22 mm (bez upevňovacích držáků)
- Provozní teplota: min. 0 °C max +55 °C
- Skladovací teplota: min. -20 °C max +85 °C
- Relativní vlhkost (nekondenzovaná): 5 – 95%
- Hmotnost: 134 g
- Omezovač nadměrného napětí (sériový port): 15 kV ESV (elektrostatické výboje)
- Magnetická izolace (port ethernet): 1,5 kV
- Ochrana linky napájení: 4 kV Burst (EFT), EN 61000 – 4 – 4
  2 kV Surge, EN 61000 – 4 – 5
- Certifikáty: CE třída A, FCC Třída A, CUL, TÜV

(*) Stíněný kabel, 3 vodiče, průřez 0,51 mm^2 s pevným drátem nebo 0,16 mm^2 s ohebným drátem, typ AWG24. Doporučený pro připojení do 15 m.



Resetovací tlačítko

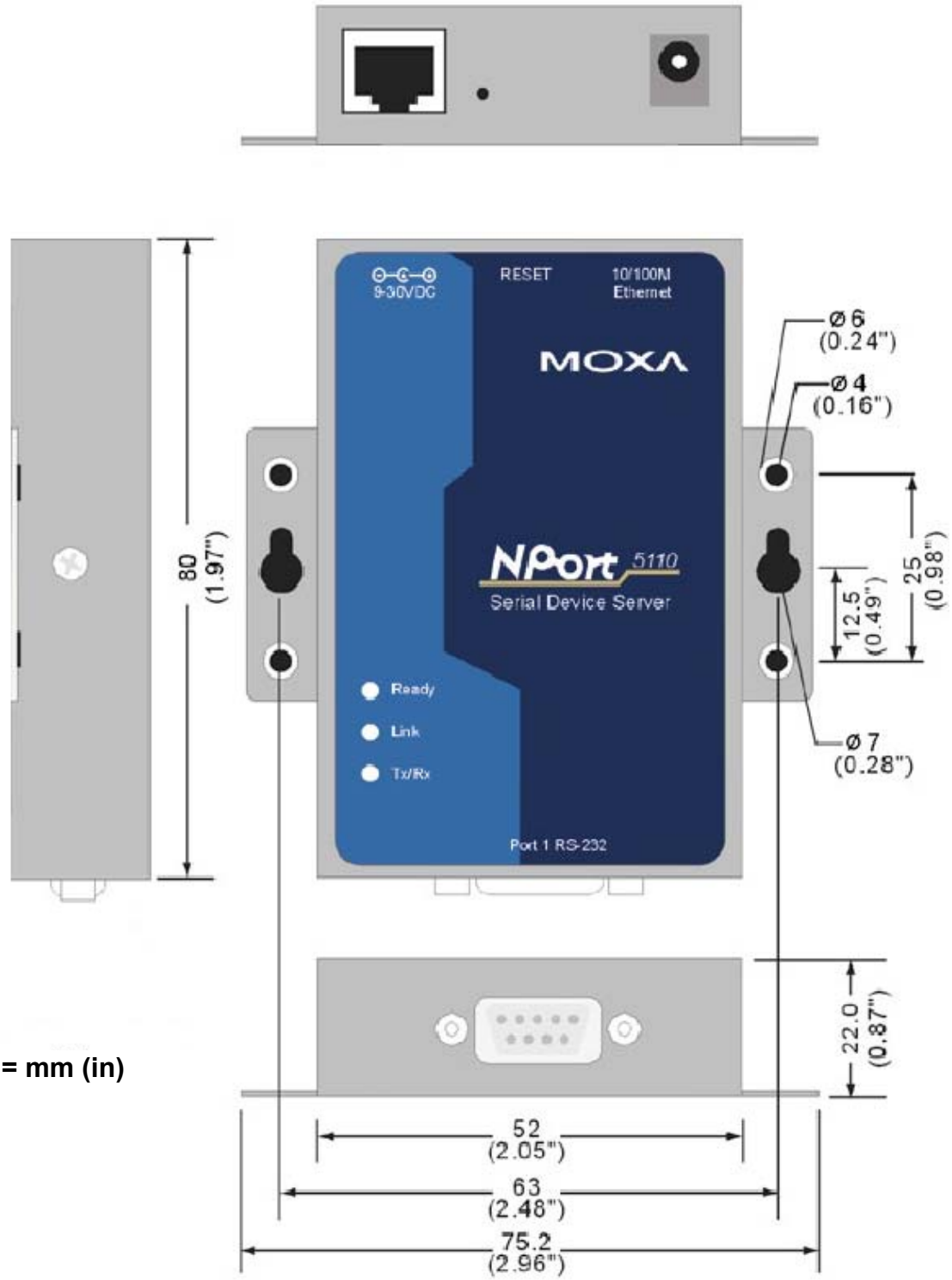
Podržíte-li resetovací tlačítko stisknuté 5 sekund, rozhraní provede konfiguraci s počátečním nastavením od výrobce:

- Na stisknutí tlačítka použijte špičatý předmět.
- Při stisknutí tlačítka začne blikat kontrolka Ready (1).
- Poté, co kontrolka Ready (1) přestane blikat (zhruba po 5 sekundách), se nahraje počáteční konfigurace.
- Nyní bude možné uvolnit tlačítko.

Fungování kontrolek

Název kontrolky	Barva kontrolky	Funkce kontrolky
Ready (1)	Červená	Svítí stále: rozhraní je napájeno a probíhá inicializace. Bliká: označuje konflikt adresy IP nebo že síťový server nereaguje správně.
	Zelená	Svítí stále: rozhraní je napájeno a funguje normálně. Bliká: software NPort Administrator lokalizoval rozhraní.
	Zhasnuta	Rozhraní není napájeno nebo v napájení byla zjištěna nějaká chyba.
Link (2)	Oranžová	Připojení Ethernet 10 Mbs.
	Zelená	Připojení Ethernet 100 Mbs.
	Zhasnuta	Kabel Ethernetu je odpojen nebo je na něm zkrat.
Tx / Rx (3)	Oranžová	Sériový port přijímá data.
	Zelená	Sériový port vysílá data.
	Zhasnuta	Žádná data nejsou přijímána ani vysílána přes sériový port.

Mechanické charakteristiky



Jednotka = mm (in)

Napáječ pro rozhraní RS232/Ethernet

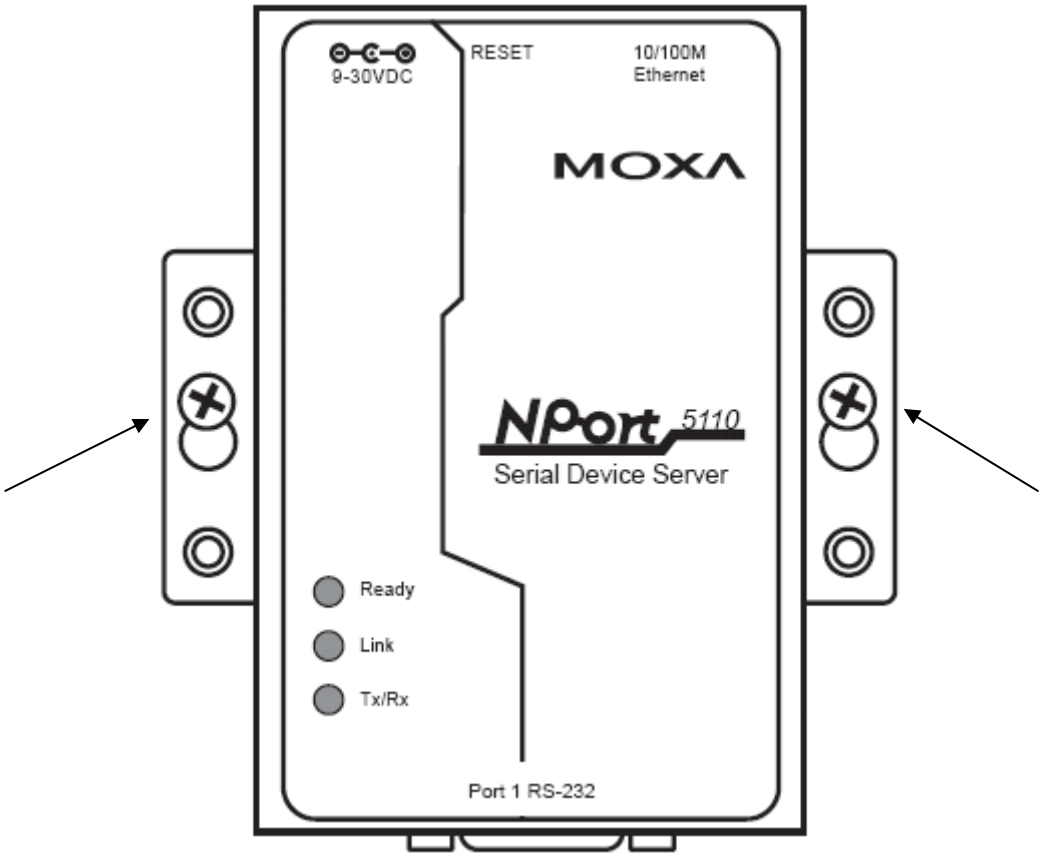
Všeobecné charakteristiky

- Napájení: 230 Vac 50 Hz, 49 mA
- Výstup: 12 Vdc 400 mA
- Rozptýlený výkon: 6,5 W
- Rozměry (Šíř. x Výš. x Hl.): 51 x 63 x 41 mm
- Provozní teplota: min. 0 °C max +55 °C
- Skladovací teplota: min. -20 °C max +85 °C
- Relativní vlhkost (nekondenzovaná): 5 – 95%
- Hmotnost: 317,5 g
- Délka kabelu: (1818 mm)
- Certifikáty: CE, TÜV

Instalace

Montáž rozhraní

Rozhraní je možné připevnit na zeď pomocí otvorů na bočních jazýčcích.



Požadavky systému

Před instalací rozhraní RS232/Ethernet je nutné zkontrolovat, zda použitý systém odpovídá minimálním požadavkům systému:

Operační systém:	Windows 98, 2000, NT 4.0, XP (+sp2)
Procesor:	Pentium 200MHz nebo vyšší
Paměť:	64 MB Ram
Pevný disk:	2 GB
Grafická karta:	rozlišení 1024 x 768
Přehrávač CD	
Myš	
Kompatibilní klávesnice Windows 98	
Jeden sériový port:	
Síťová karta Ethernet 10/100 Mbps	

Informace pro instalaci

Při instalaci **rozhraní RS232/Ethernet** je nutné provést následující úkony v tomto pořadí:

1) Připojit rozhraní k síti Ethernet (viz odstavec Připojení k síti Ethernet)

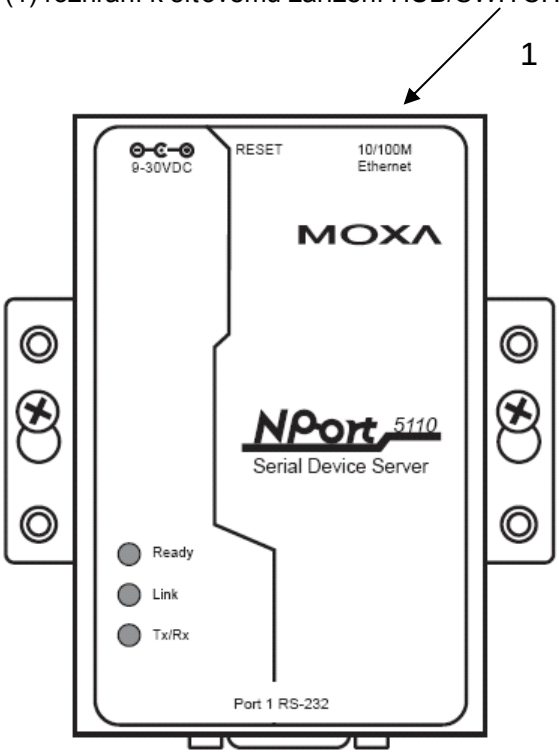
2) Připojit rozhraní k portu **RS232 konvertoru DARDO RS232/485**
   (viz odstavec Připojení sériového kabelu).
   Viz příklad propojení s řídícími systémy SCHNEIDER ELECTRIC
   (viz kap. DODATKY)

3) Napájet rozhraní pomocí napáječe, který je součástí vybavení (viz odstavec Připojení napáječe)

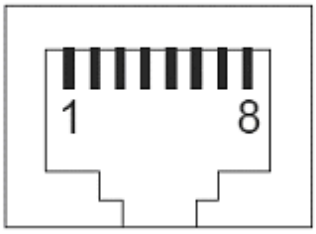
4) Konfigurovat rozhraní (viz kap. 5) po instalaci konfiguračního softwaru nacházejícího se na CD, které je součástí vybavení.

Připojení k síti Ethernet

Připojit port 10/100 M Ethernet (1) rozhraní k síťovému zařízení HUB/SWITCH pomocí kabelu **RJ45**.



Port 10/100 M Ethernet rozhraní

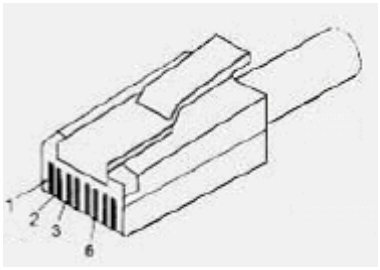


Číslo PIN	Signály Ethernet
1	Tx+
2	Tx-
3	Rx+
6	Rx-

Kabel RJ45

Použít rovný kabel RJ45:

Pin č.1	Přenos dat +
Pin č.2	Přenos dat -
Pin č.3	Příjem dat +
Pin č.4	Vyhrazeno
Pin č.5	Vyhrazeno
Pin č.6	Příjem dat -
Pin č.7	Vyhrazeno
Pin č.8	Vyhrazeno



Připojení:
C = strana **rozhraní RS232/Ethernet**
H = strana HUB/SWITCH síť Ethernet

POZOR:

POUŽÍT KABEL UTP (UNSHIELDED TWISTED PAIR) SE STOČENÝMI PÁRY, NESTÍNĚNÝ, KATEGORIE 5, VHODNÝ PRO POUŽITOU SÍŤ ETHERNET.

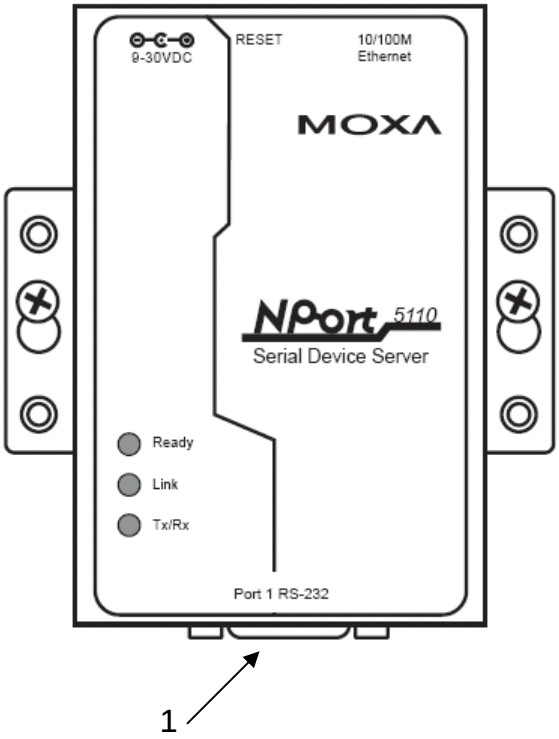
ZKONTROLOVAT, ZDA POUŽITÝ HUB/SWITCH MÁ PORTY 10/100 MBPS S AUTO-SENSINGEM.

ZKONTROLOVAT PŘÍTOMNOST PŘÍPADNÝCH FILTRACÍ NA PORTECH VSTUPU DO KONFIGURACE HUB/SWITCH (NAPŘÍKLAD KONFIGURACE "PORT SECURITY").

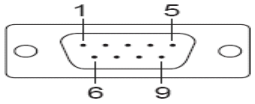
ZKONTROLOVAT, ZDA EXISTUJÍ OMEZENÍ PRO PROTOKOL TCP/IP NA PŘÍSTROJÍCH SÍTĚ LAN (NAPŘÍKLAD KONFIGURACE TYPU "ACCESS CONTROL LISTS")

Připojení sériového kabelu

Připojit sériový port RS232 (1) **rozhraní RS232/Ethernet** k portu RS232 **konvertoru DARDO RS232/485** připojenému k řídícímu systému SCHNEIDER ELECTRIC (viz kap. DODATKY)



Port RS232 rozhraní

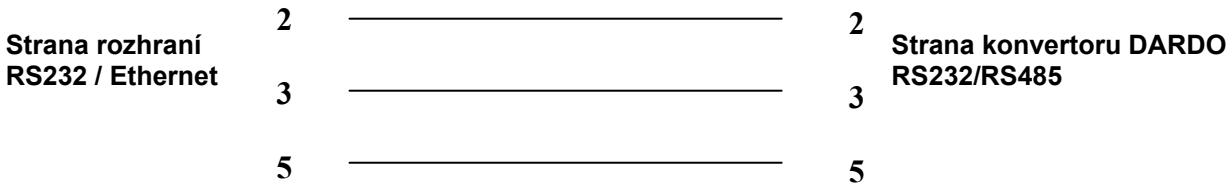


Číslo PIN	Použité signály RS232

Sériový kabel

Použitý sériový kabel musí být typu pin to pin, stíněný o 3 vodičích (typ AWG24: průřez 0,51 mm^2 s pevným drátem nebo 0,16 mm^2 s ohebným drátem). Konektory obou konců kabelu jsou typu DB9 samice:

Připojení PINů konektorů DB9 sériového kabelu

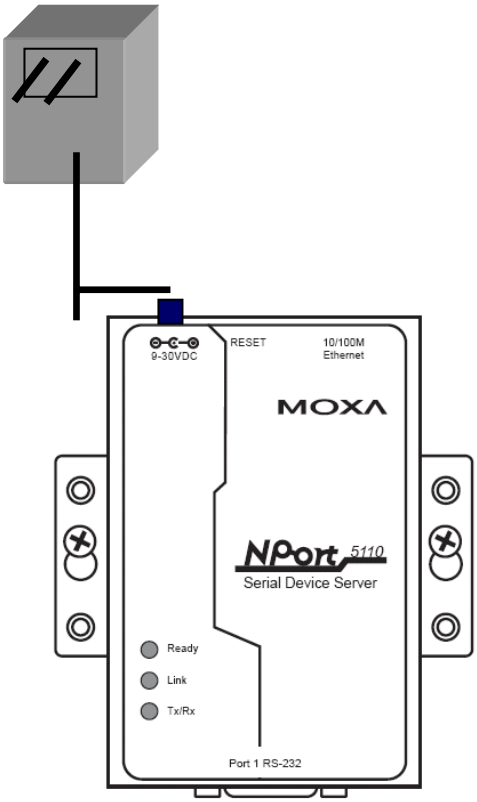


POZOR:

DÉLKA SÉRIOVÉHO KABELU NESMÍ PŘESÁHNOUT 15 METRŮ.

Připojení napáječe

Připojit napáječ, který je součástí vybavení, k **rozhraní RS232/Ethernet**:



Připojit rozhraní k napájecí síti 230 Vac 50 Hz

Konfigurace rozhraní RS232 / Ethernet

Aby mohlo být **rozhraní RS232/Ethernet** použito, je třeba jej nejprve nakonfigurovat. Při konfiguraci postupujte následovně.

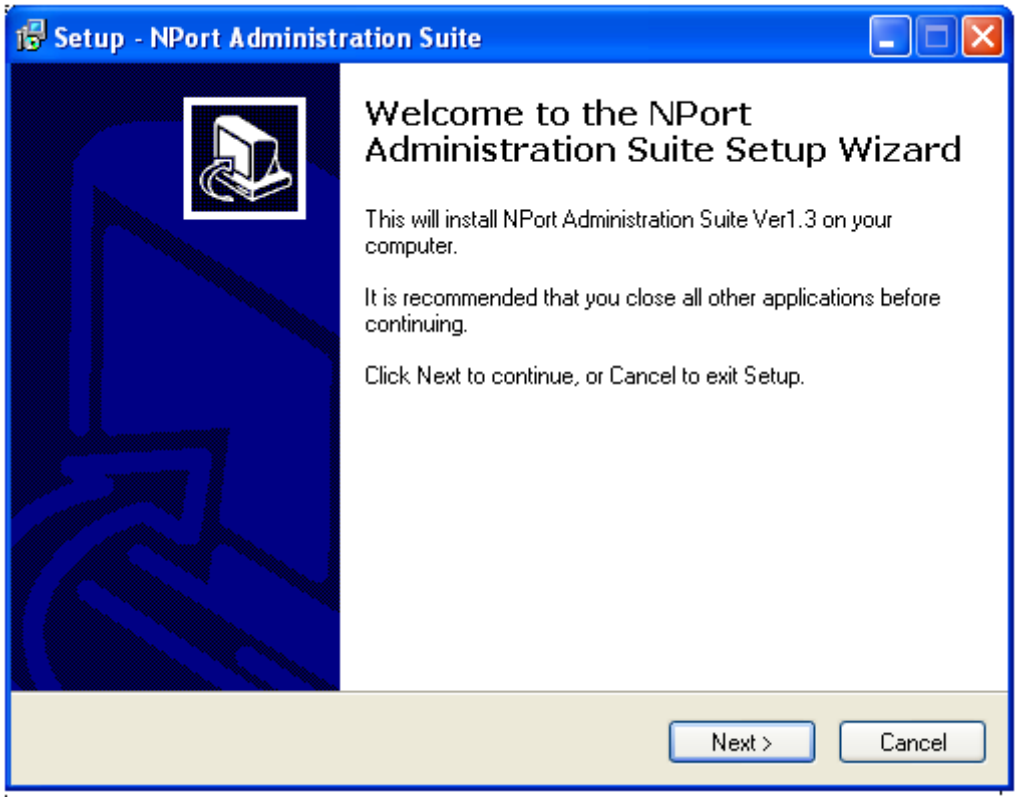
Instalace konfiguračního programu

Nainstalovat konfigurační program do **PC** řízení:

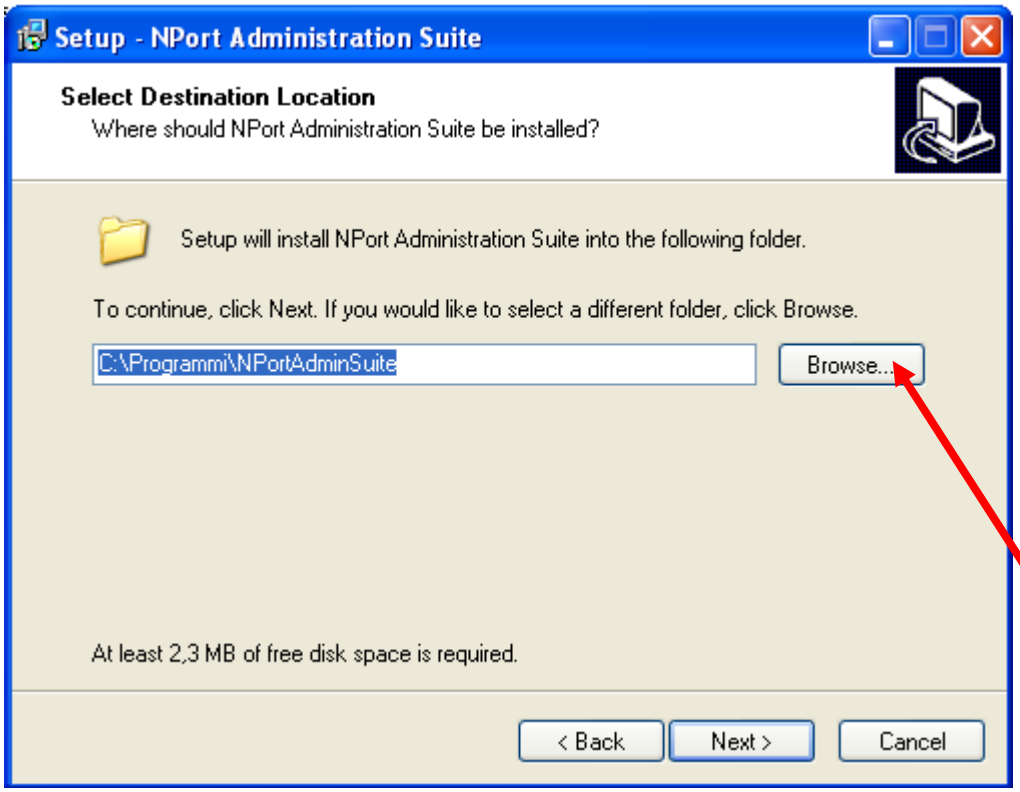
1 Vložit CD, které je součástí vybavení, do jednotky CD-ROM počítače, programem “Prohledávání počítačů” vstoupit do složky CD: **\NPort 5110\Software\Windows**. Spustit soubor **setup.exe**

POZOR:

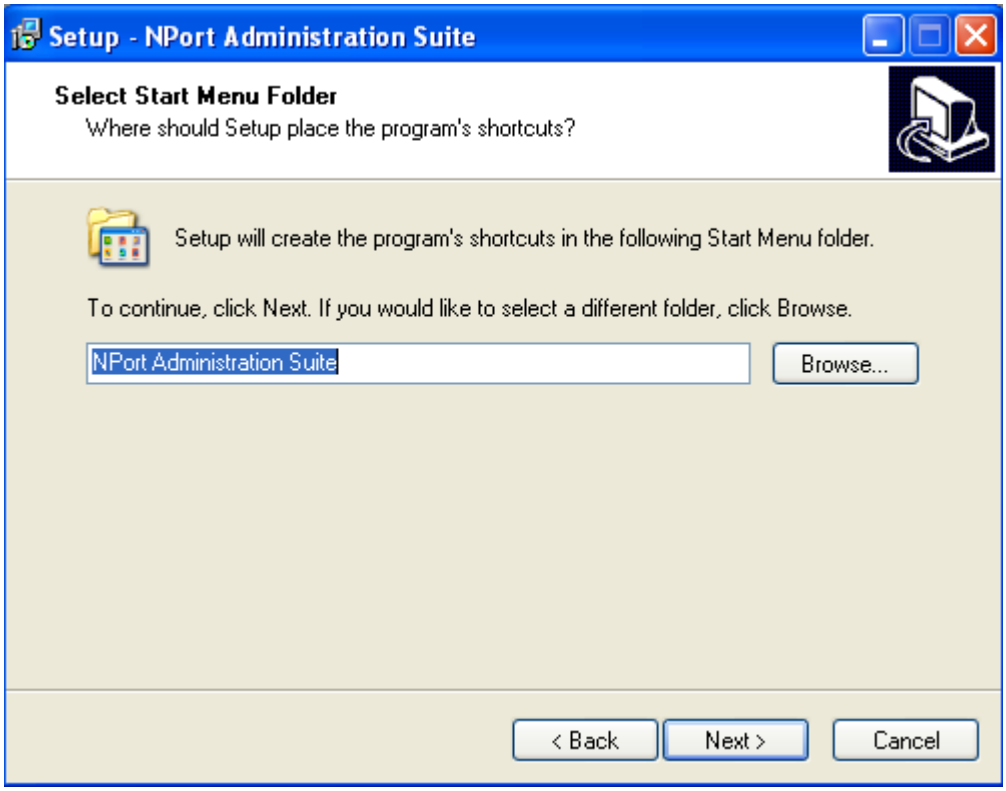
SOFTWARE A PŘÍSLUŠNÁ PŘÍRUČKA JSOU ČASTO AKTUALIZOVÁNY, OBSAH PŘILOŽENÉHO CD MŮŽE PODLÉHAT ZMĚNÁM.
OBRAZOVKY BY SE MOHLY ZOBRAZOVAT JINAK, NEŽ JAK JSOU POPSÁNY DÁLE V TÉTO PŘÍRUČCE, ALE PROCEDURA ZŮSTÁVÁ STEJNÁ.
DOPORUČUJEME SI PŘEČÍST SOUBORY **README.TXT** A **VERSION.TXT,** KTERÉ SE NACHÁZEJÍ NA CD A OBSAHUJÍ VŠECHNY AKTUALIZACE.



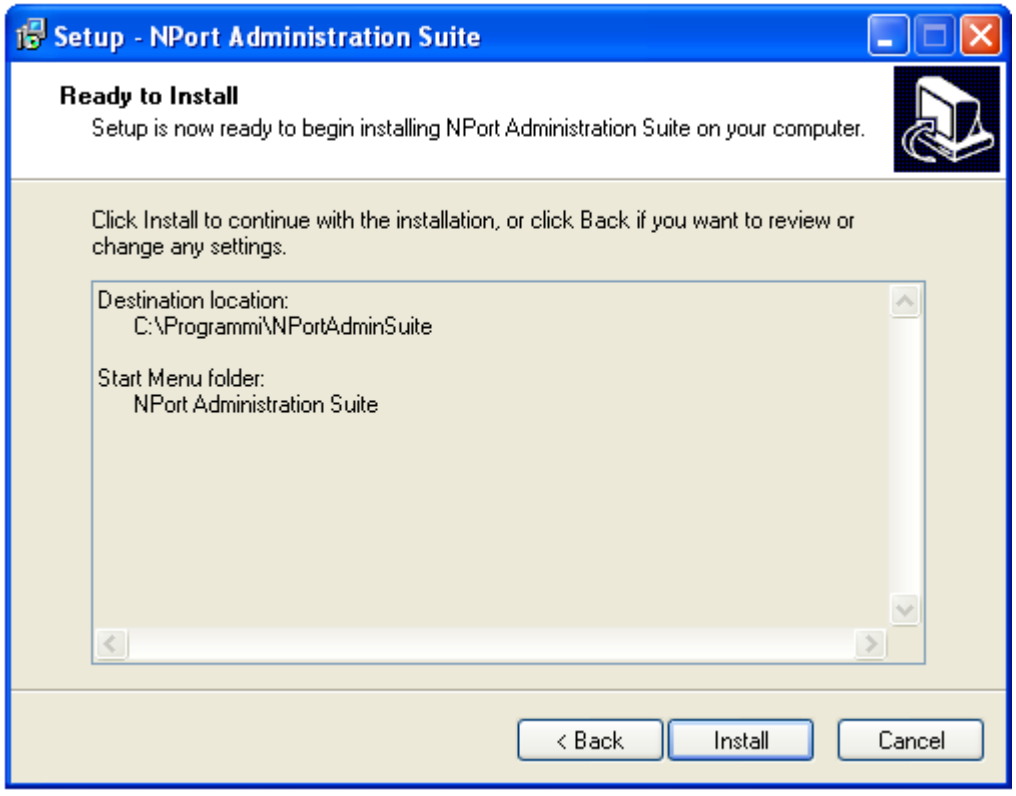
2 Kliknout na **Next**



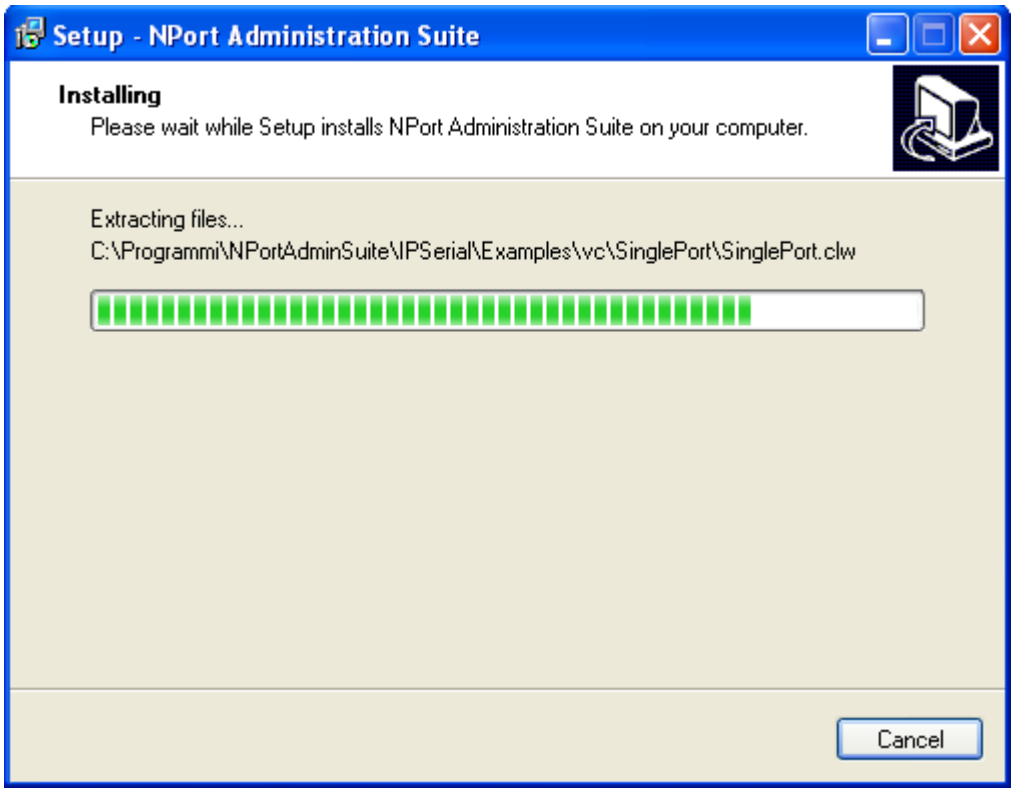
3 Kliknout na **Next.** Chcete-li změnit adresář určení, je třeba stisknout tlačítko (1) a v okně, které se zobrazí, zvolit požadovanou složku



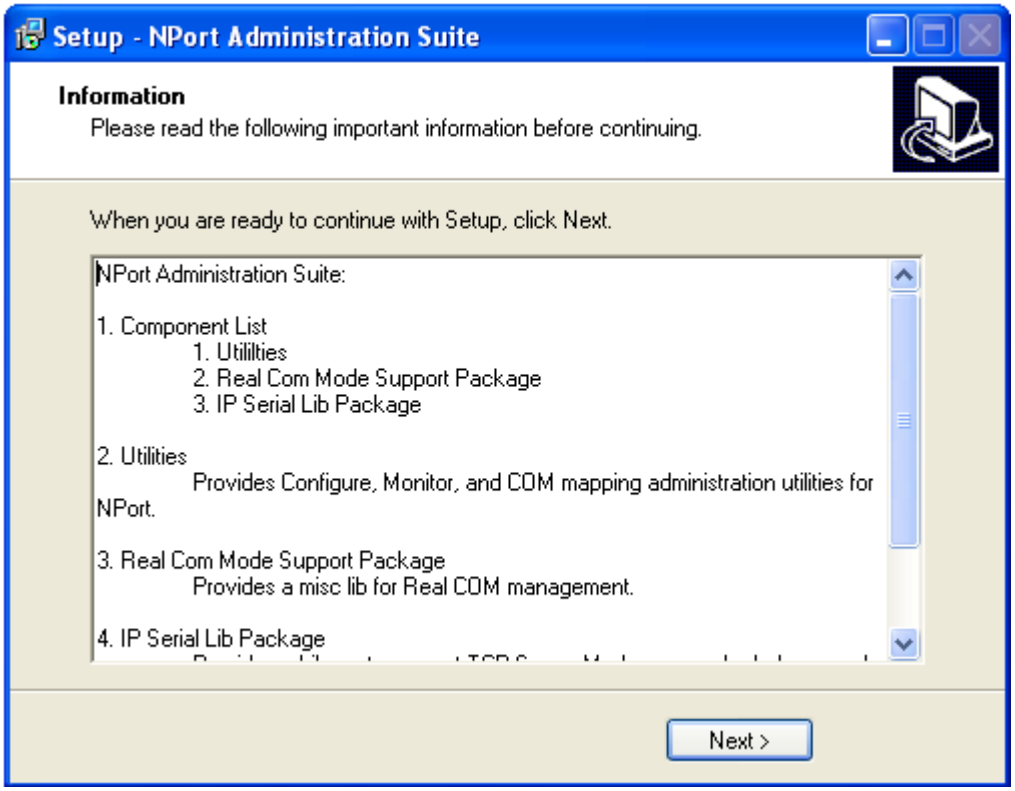
4 Kliknout na **Next**



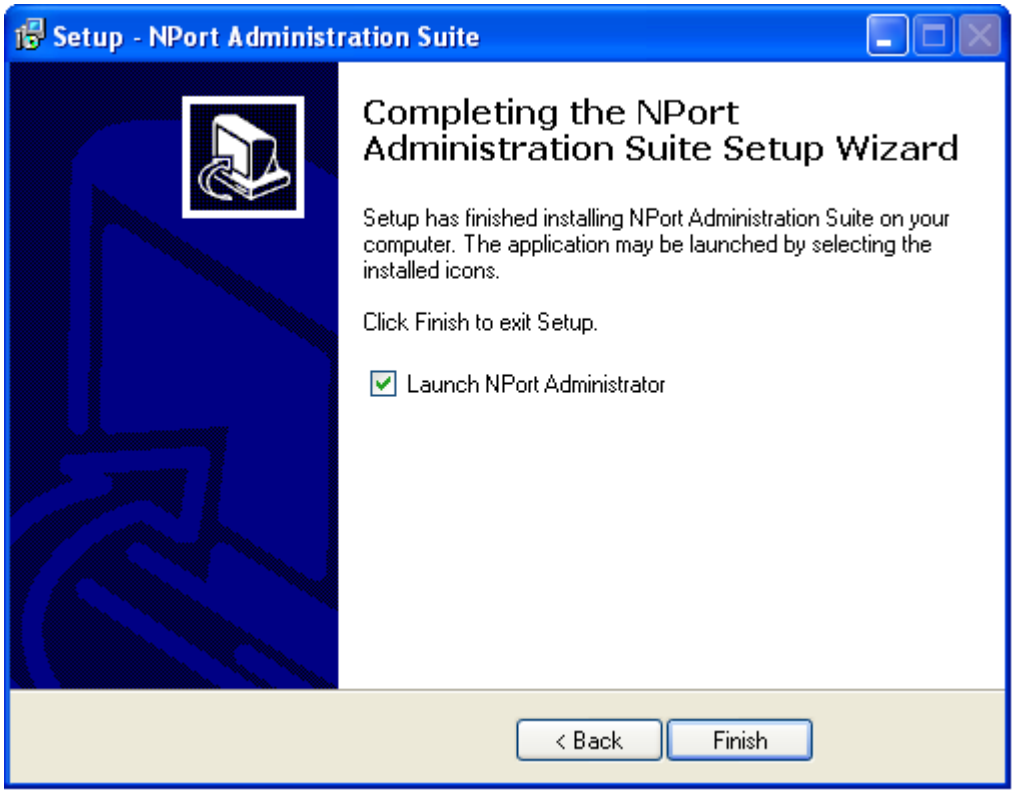
5 Kliknout na **Install**



6 Okno zobrazuje postup instalace



7 Kliknout na **Next**

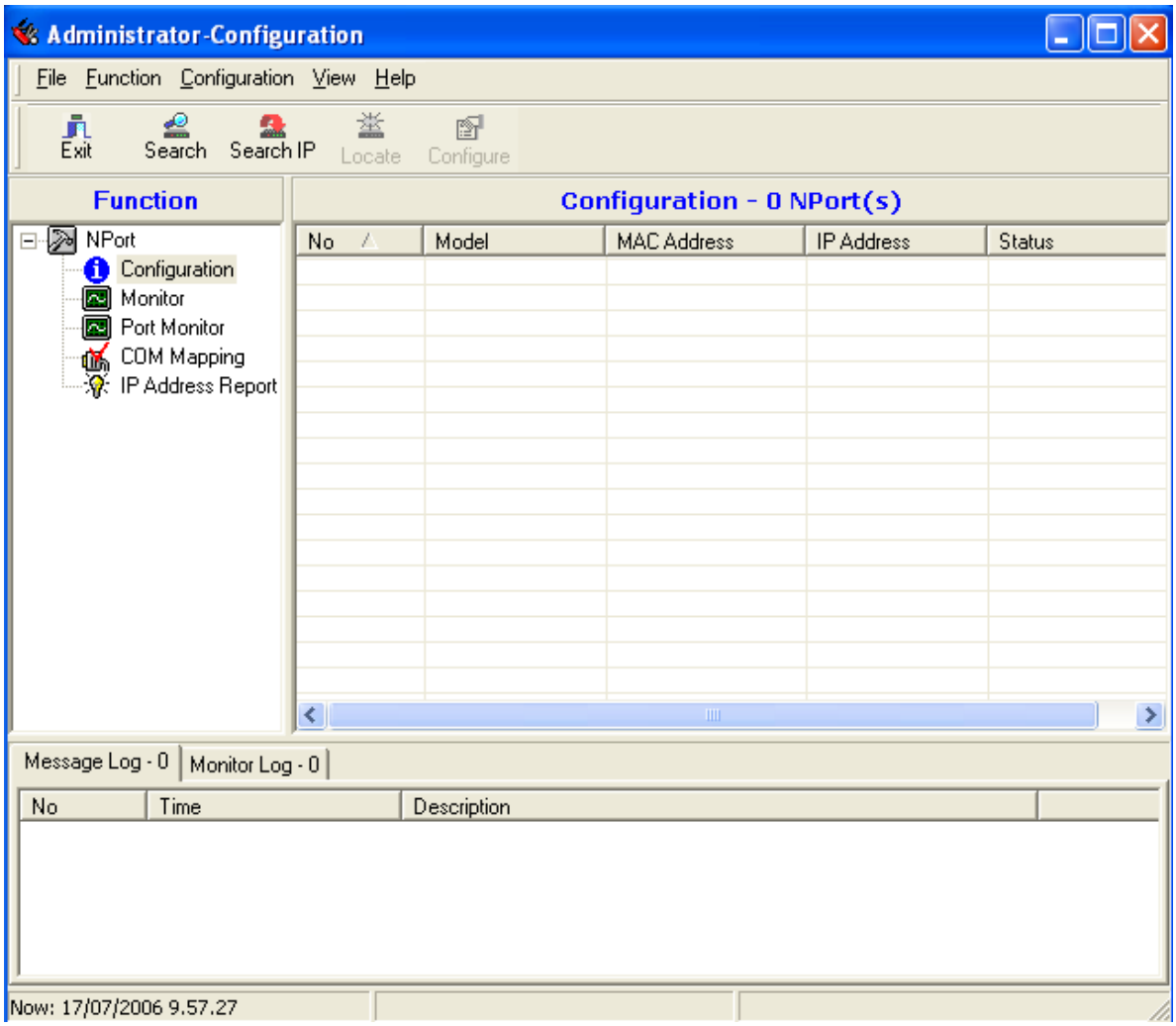


8 **Kliknout na Finish,** aby se ukončila instalace a poté spustit konfigurační program

Konfigurace

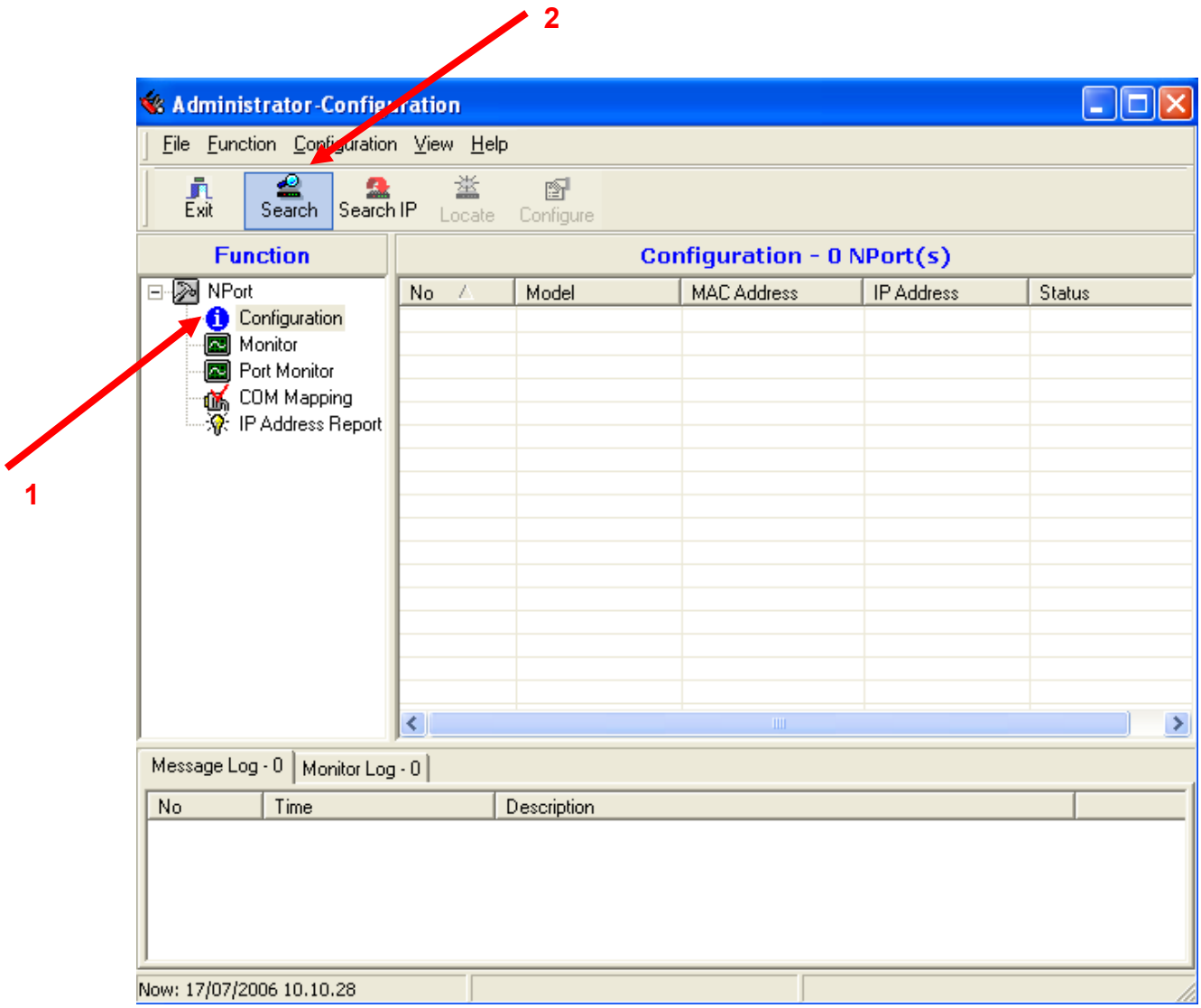
Konfigurační program se spustí automaticky po instalaci (postupovat podle kroků předcházejího odstavce). Chcete-li tento program spustit jindy, je třeba kliknout na: **Start => Programy => NPort Administration Suite => NPort Administrator**.

Po spuštění programu se zobrazí následující obrazovka:

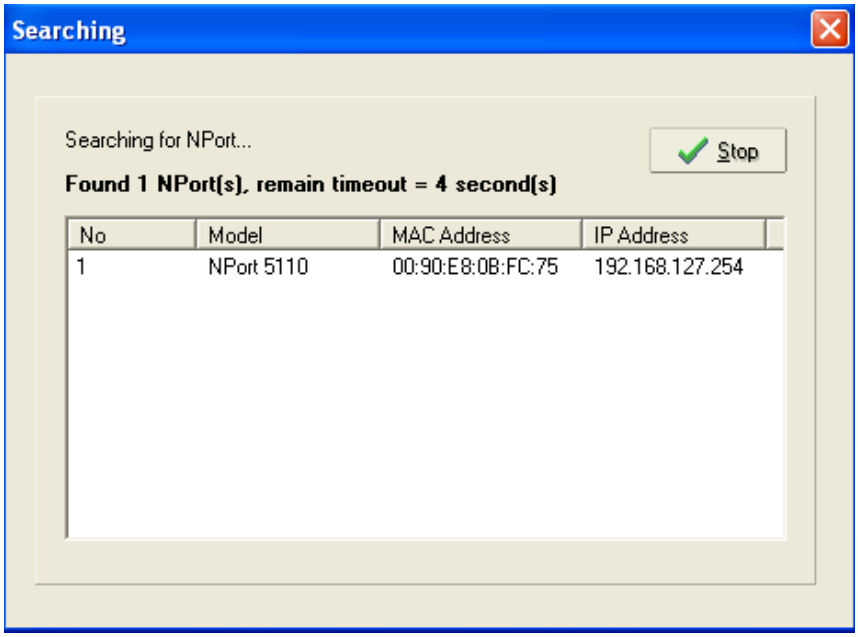


Konfigurace vyžaduje, aby bylo rozhraní nainstalováno podle pokynů uvedených v kapitole Instalace. Postupovat podle následující procedury v programu:

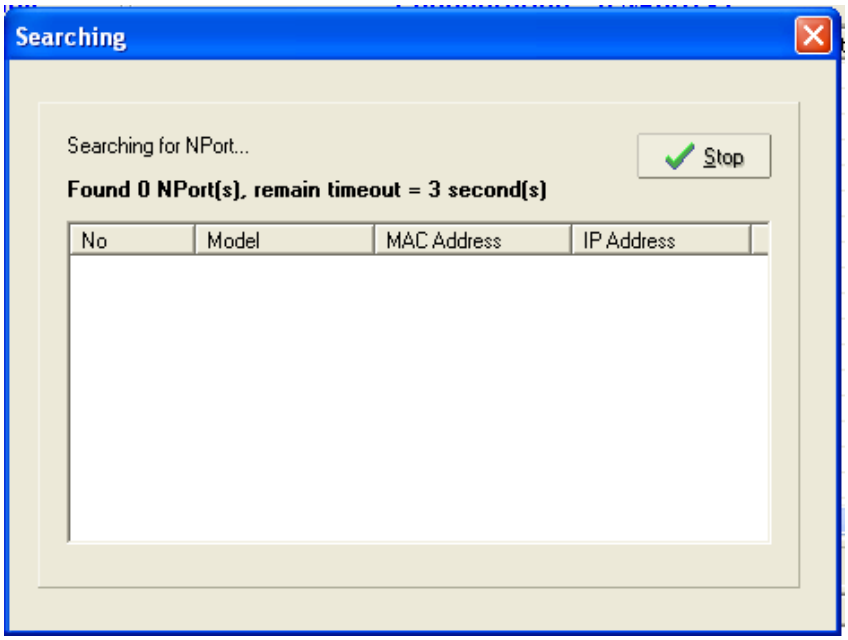
1 Zvolit Configuration (1) a kliknout na Search (2):



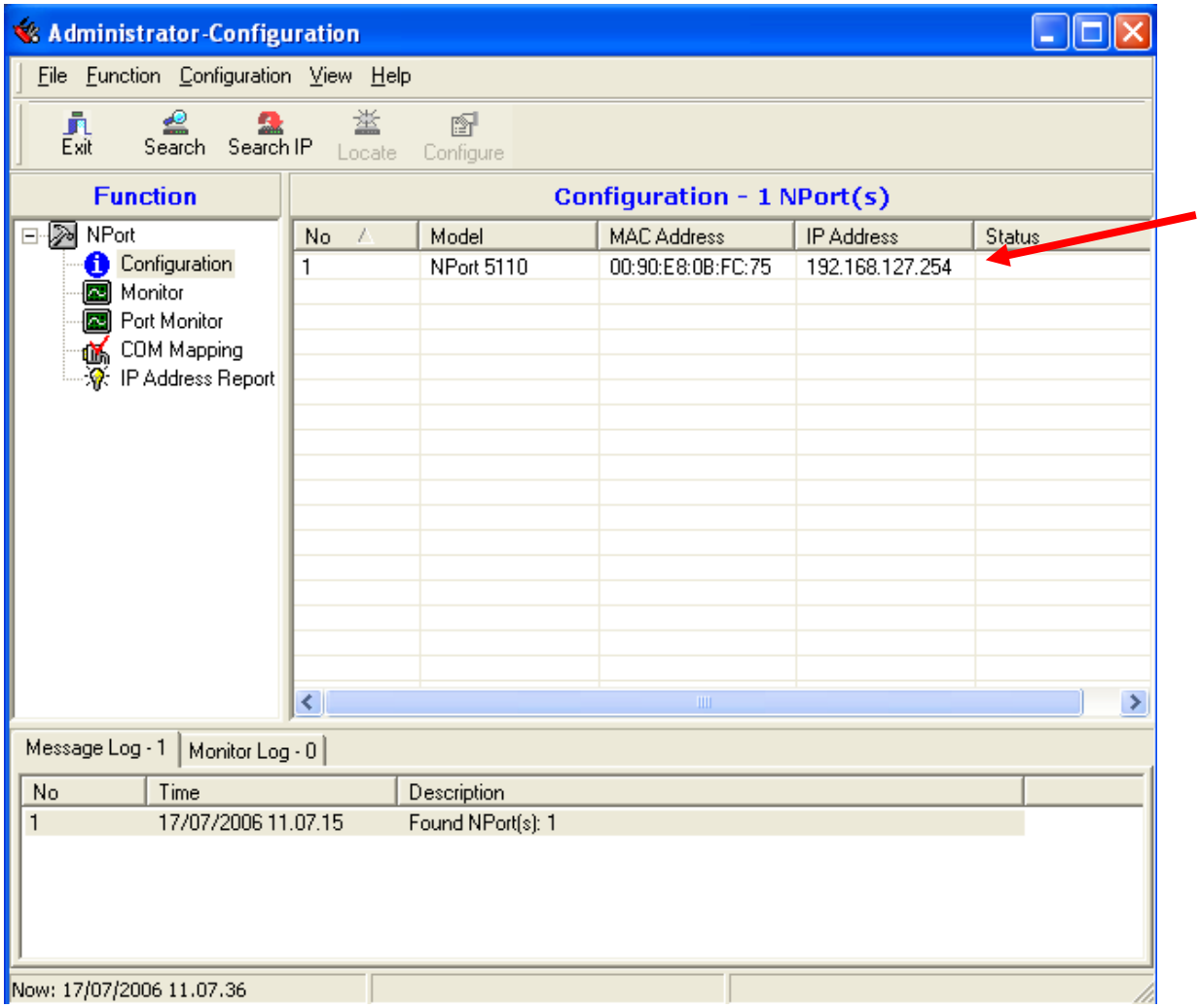
Na několik sekund se zobrazí následující okno, v němž se zobrazí vyhledávání a nalezení rozhraní připojeného k síti Ethernet:



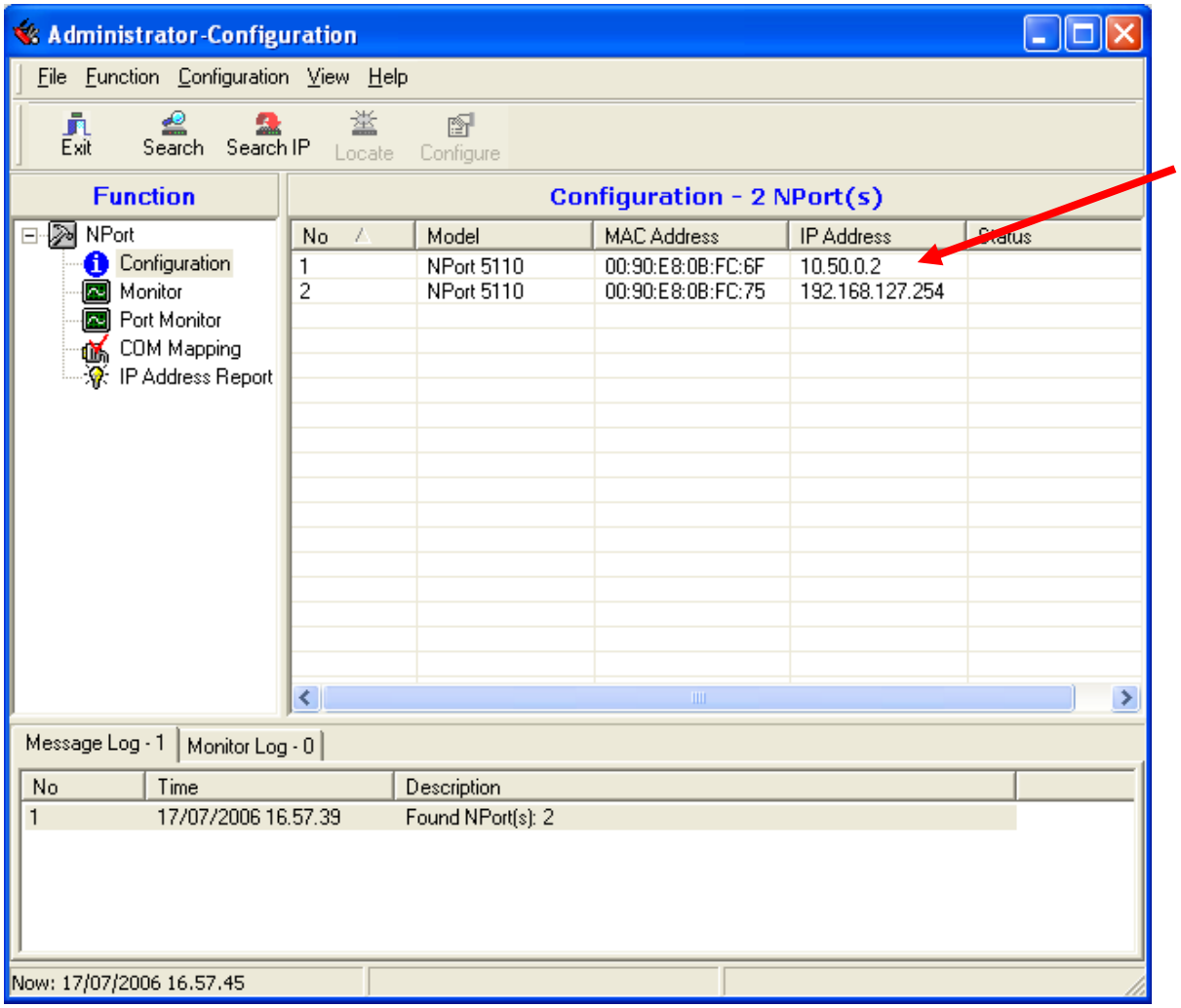
Jestliže rozhraní nebude nalezeno, bude to znamenat, že není napájeno nebo připojeno k síti Ethernet a okno tedy zůstane prázdné:



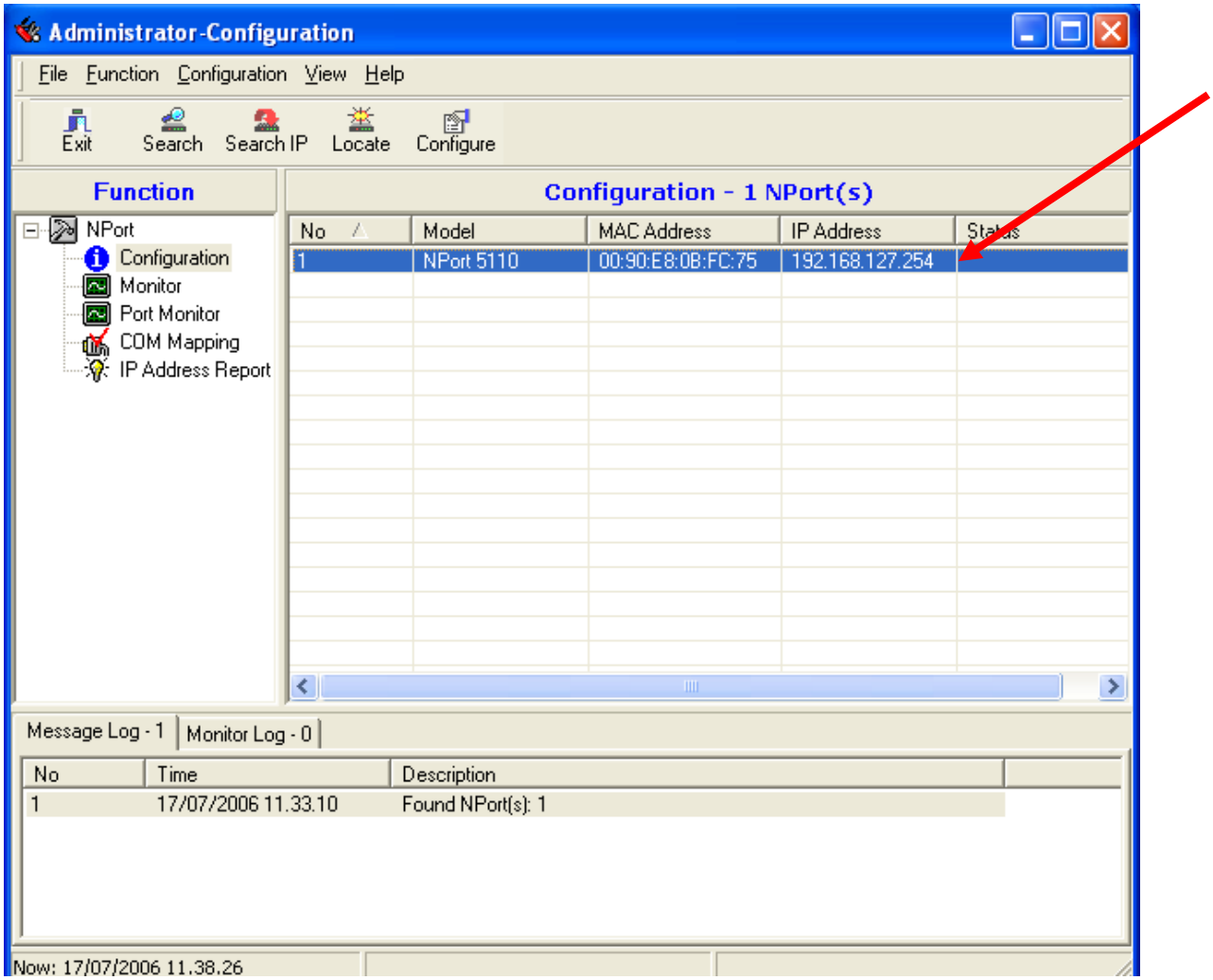
2 rozhraní připojené k síti Ethernet je uvedeno v řádce, kde jsou shrnuty následující informace: číslo připojeného rozhraní, model, MAC Address, IP Address.
Zkontrolovat, zda data modelu, MAC Address a IP Address odpovídají datům na štítku technických dat na **rozhraní RS232/Ethernet**.



Na dalších řádkách se zobrazí případná další rozhraní již připojená k síti LAN:



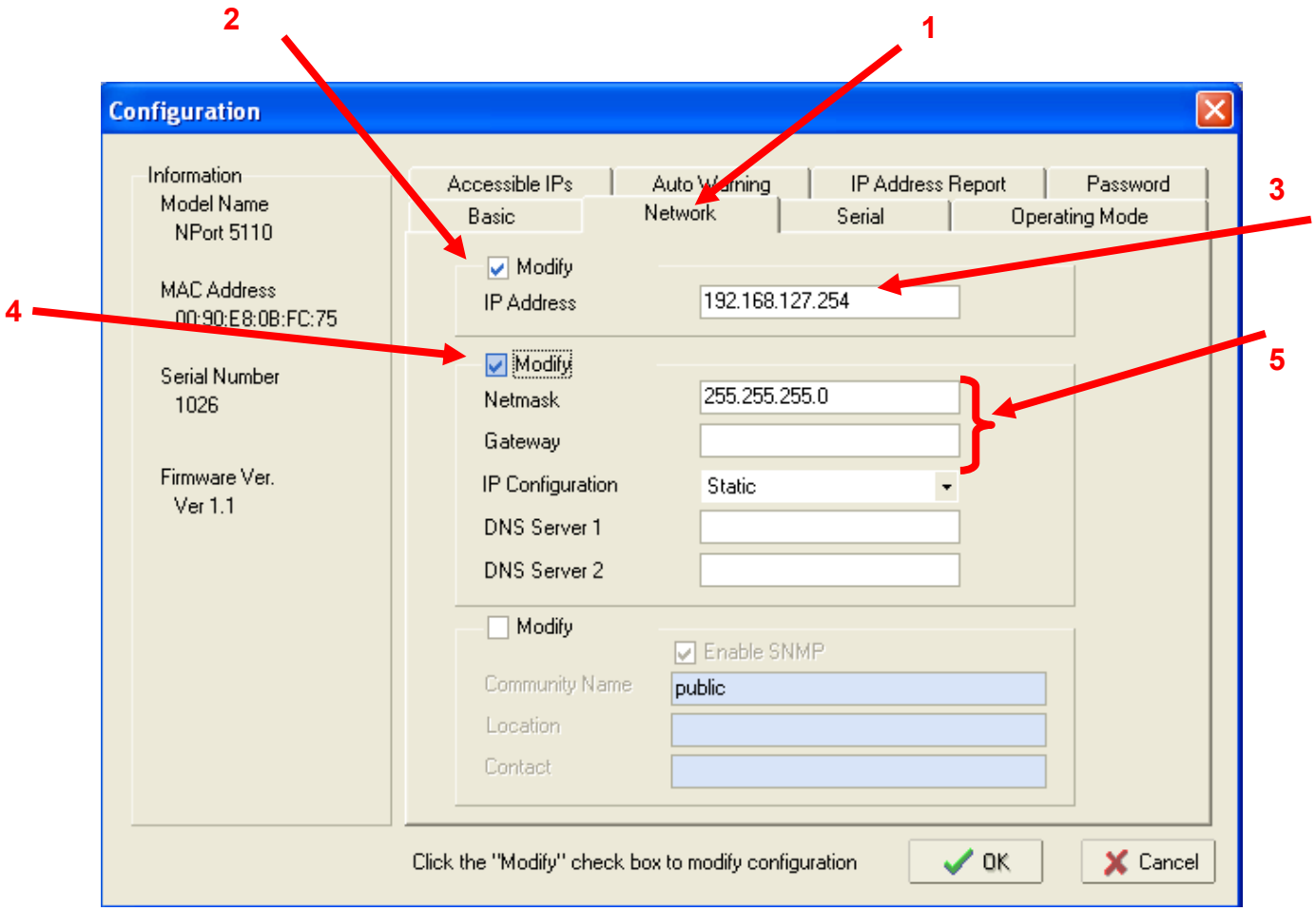
3 rozhraní je na začátku nastaveno se síťovými parametry. Chcete-li tato data změnit podle vlastní sítě, je třeba provést dvojkliknutí na řádku připojeného rozhraní:



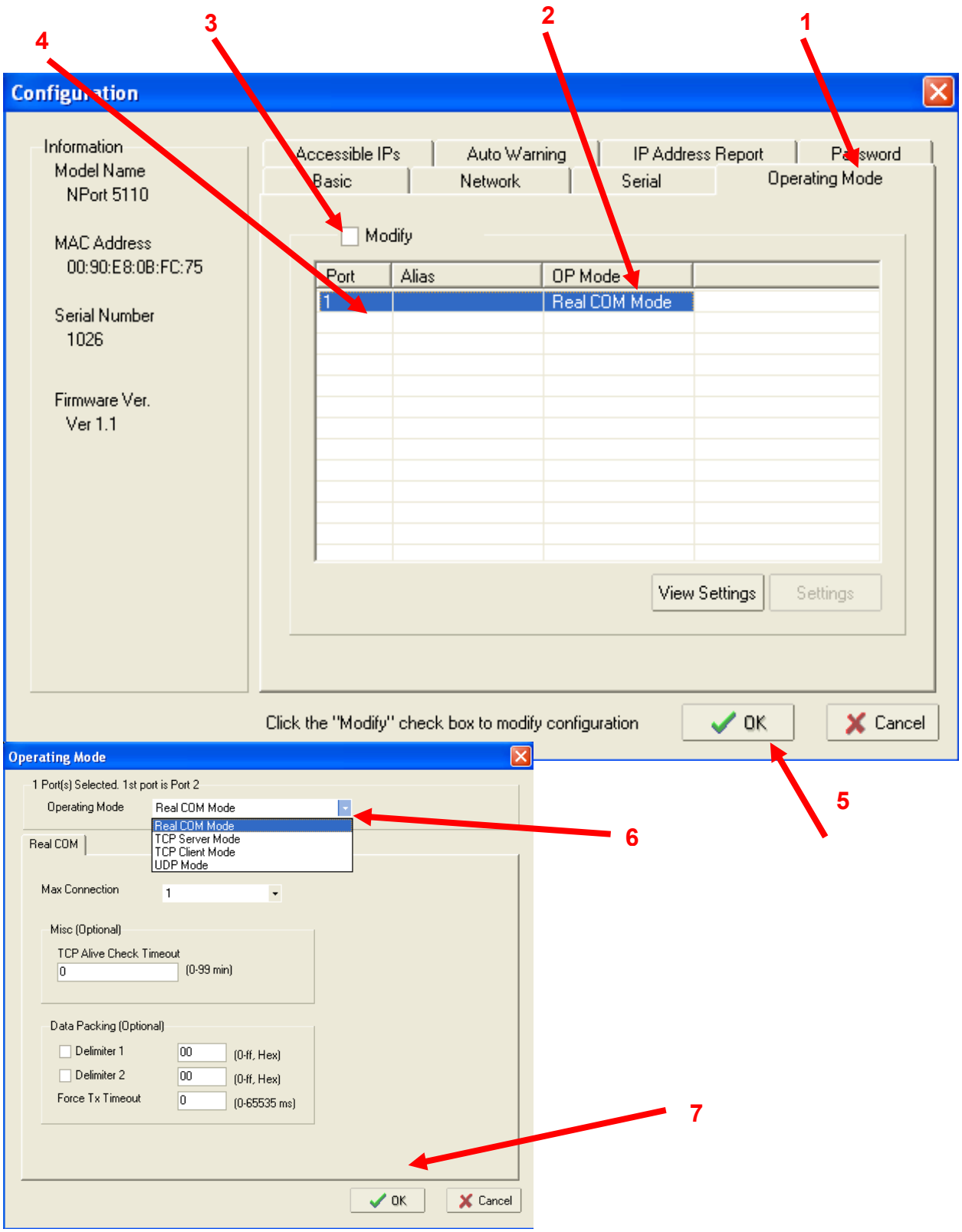
4 Zvolit volbu Network (1). Kliknout na Modify (2) a nastavit volnou adresu IP vlastní sítě LAN (3). Kliknout na Modify (4) a vložit další parametry (5).

Pozn. Parametry sítě LAN, do níž bude nainstalováno rozhraní, Vám poskytne správce Vašeho systému:

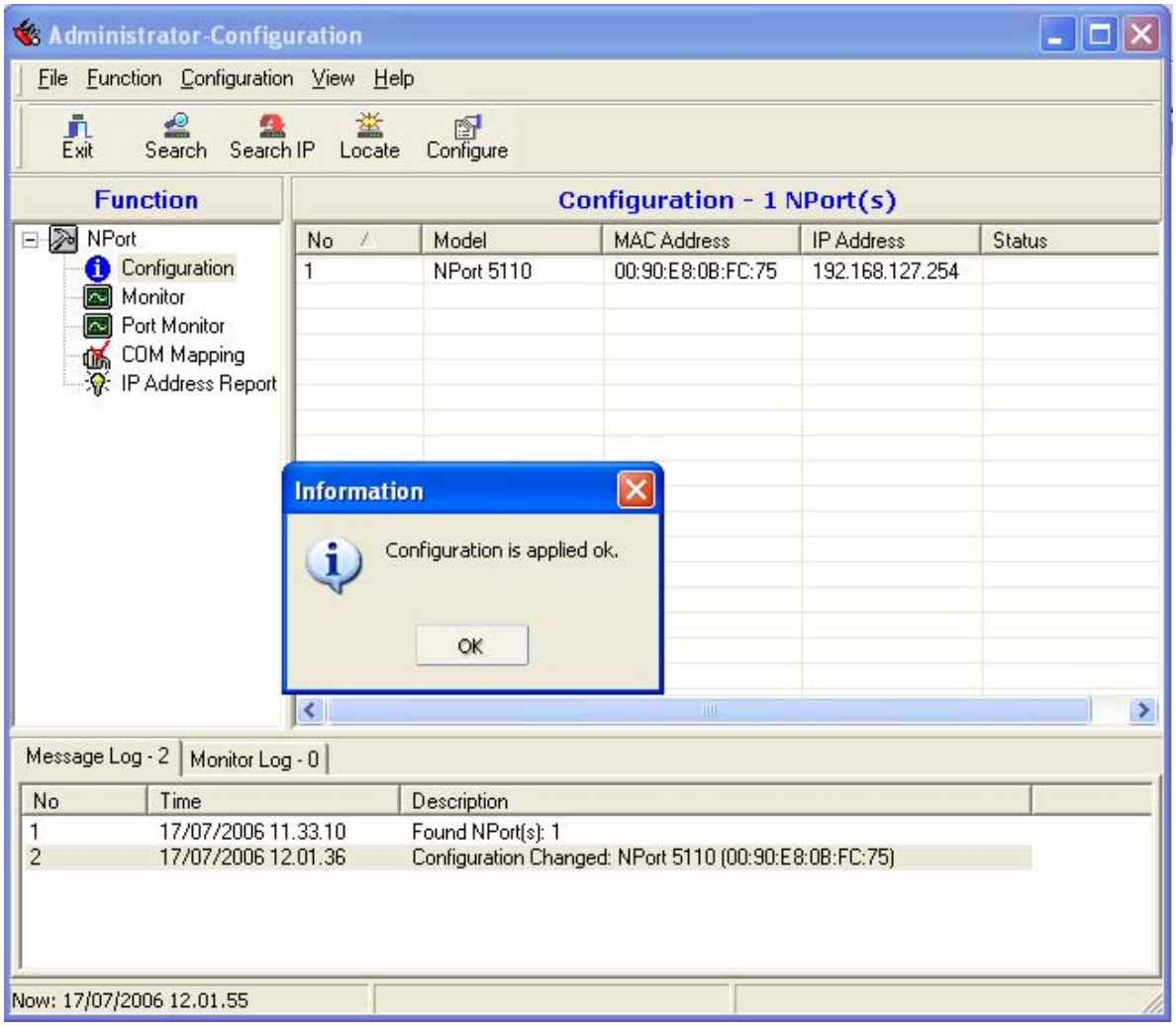
- ADRESA IP
- MASKA PODSÍTĚ (NEBO NETMASK)
- ADRESA GATEWAY



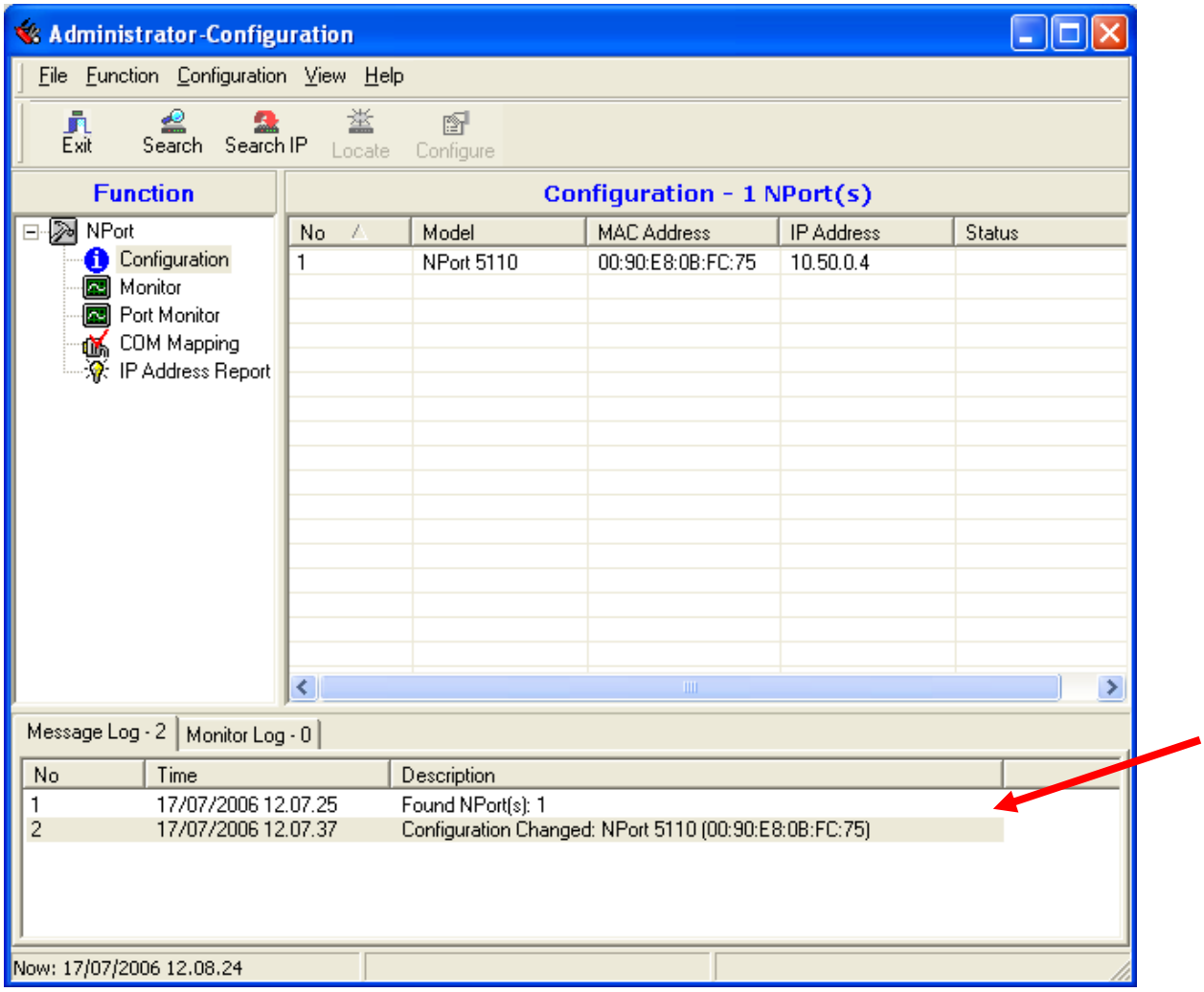
5 Zvolit funkci Operating Mode (1)a zkontrolovat, zda je přítomno označení Real COM Mode (2). Jestliže tomu tak není, zaškrtnout funkci Modify (3), provést dvojkliknutí na řádce (4) a uvnitř okna, které se otevře, nastavit u řádky Operating Mode položku Real COM Mode (6), poté potvrdit tlačítkem OK (7).
Zavřít okno Configuration tlačítkem OK (5)



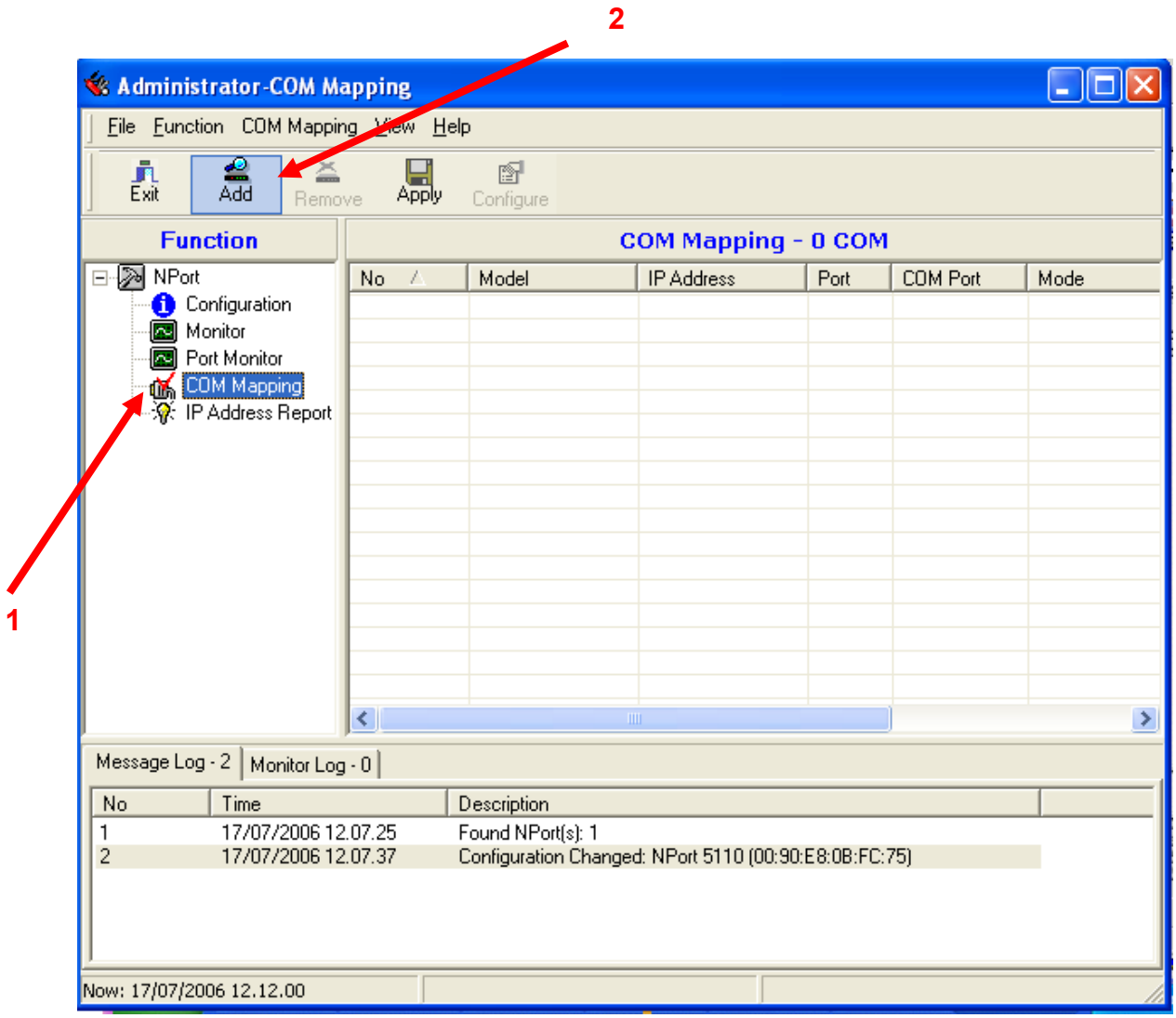
6 Změna nastavení se potvdí následující zprávou, stisknout OK.



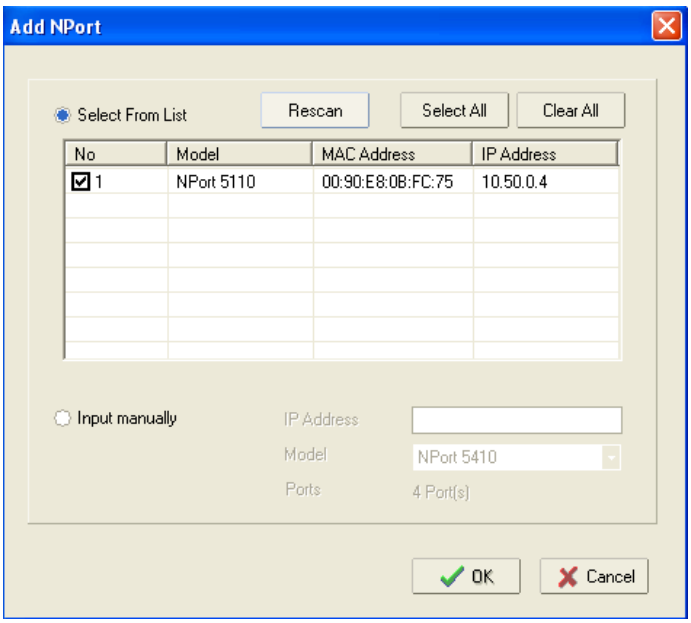
7 Okno v dolní části označuje sled operací, které byly provedeny od otevření programu:



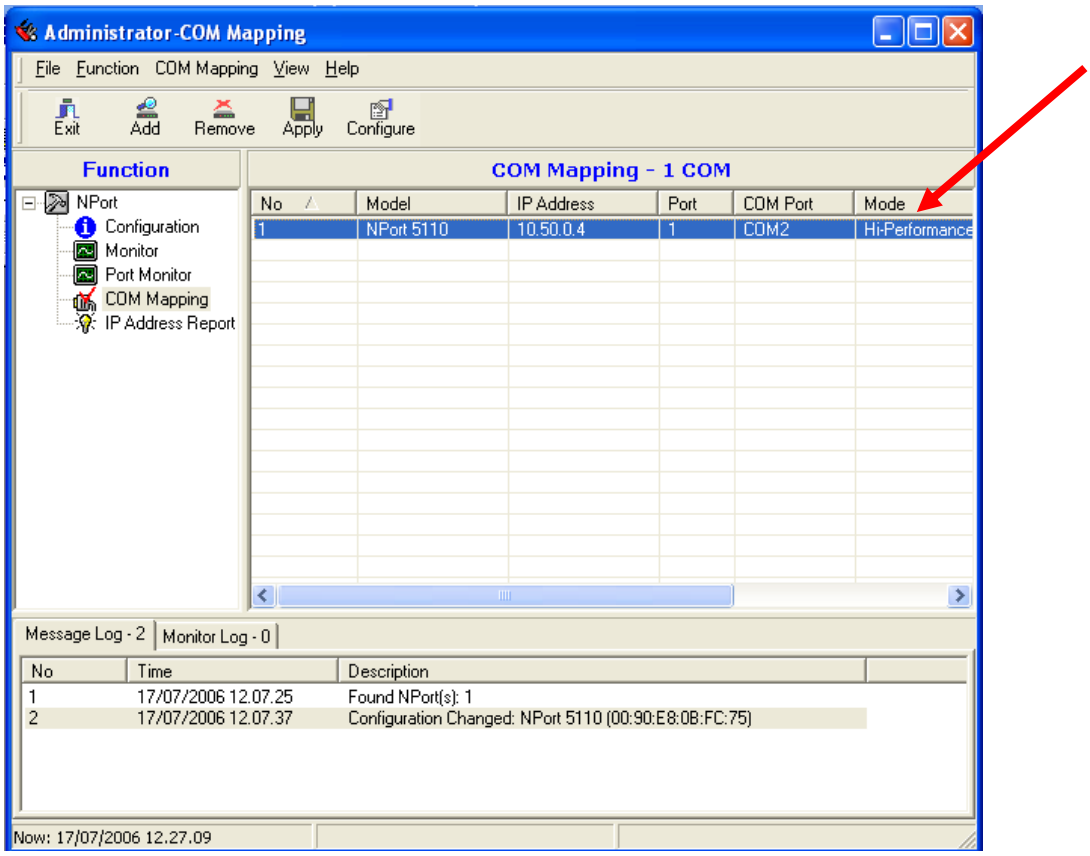
8 Zvolit položku COM Mapping (1) a kliknout na Add (2):



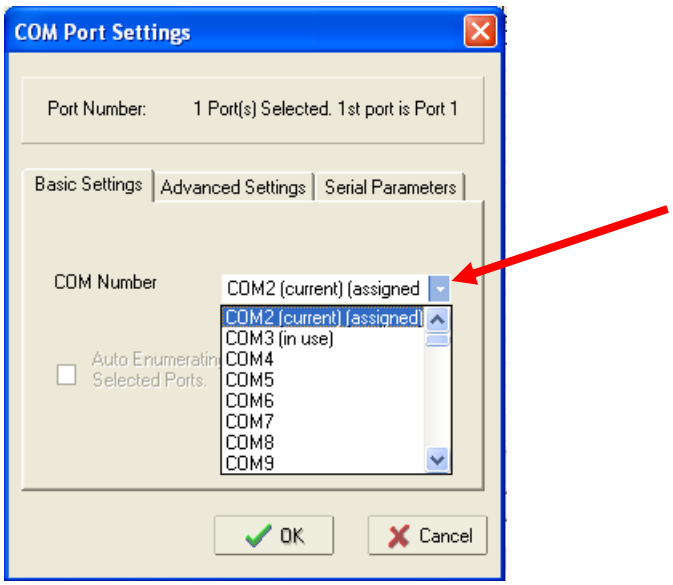
9 Tlačítkem OK potvrdit přidání rozhraní do konfigurace sériového portu přiřazeného zařízení. Jestliže se zobrazí více rozhraní, zaškrtnout to, u něhož se zobrazí předtím určená adresa IP Address:



10 Program automaticky přidělí rozhraní volnému sériovému portu řídícího PC. Chcete-li změnit nastavení, je třeba provést dvojkliknutí na řádce přidaného zařízení:

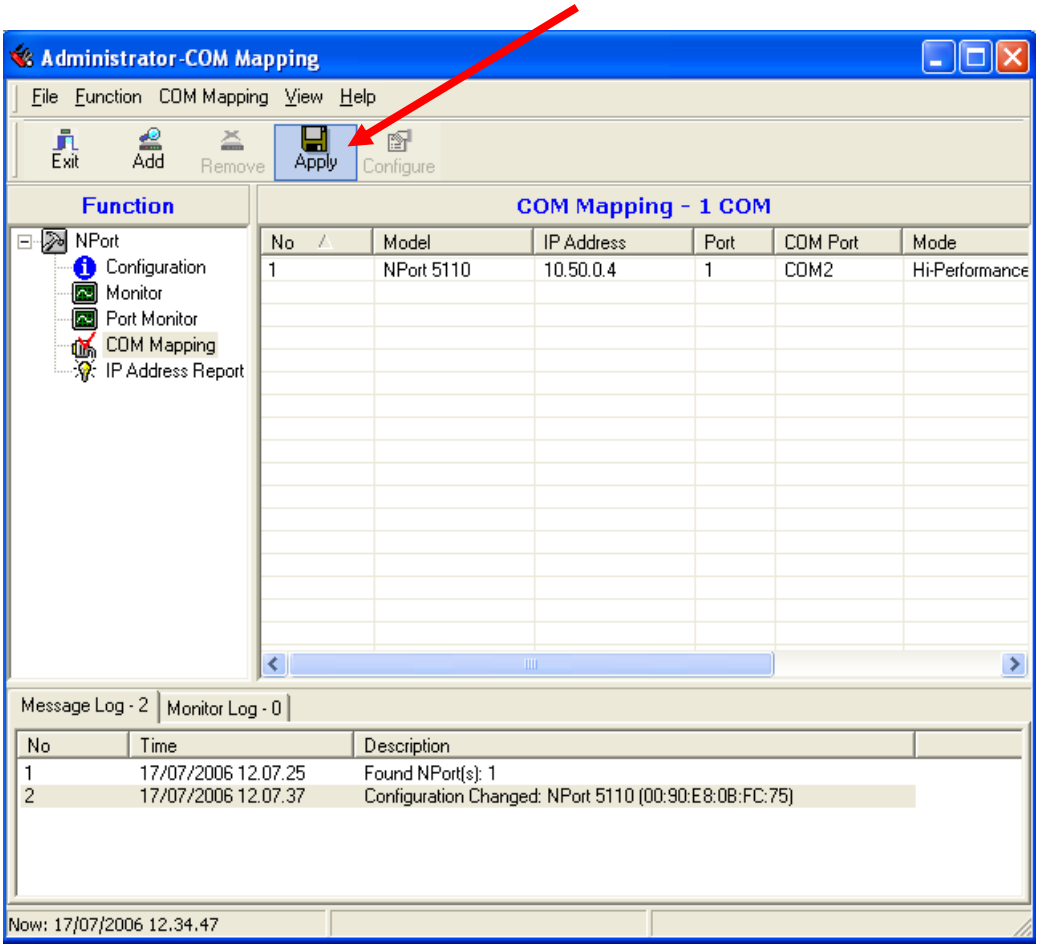


11 Otevře se následující okno. Kliknout na rolovací menu a zvolit požadovaný sériový port, který není používán (nemá žádný komentář v závorce). Stisknout OK na potvrzení.

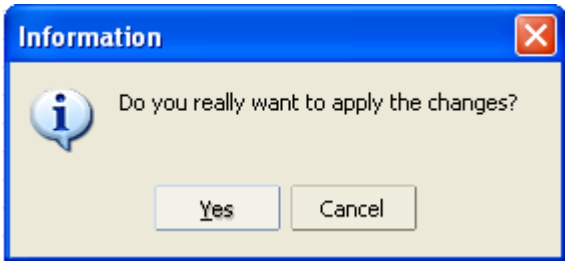


Zvolený sériový port bude použit programem řízení DARDO PC LITE/MAP na komunikaci mezi programem a zařízením.

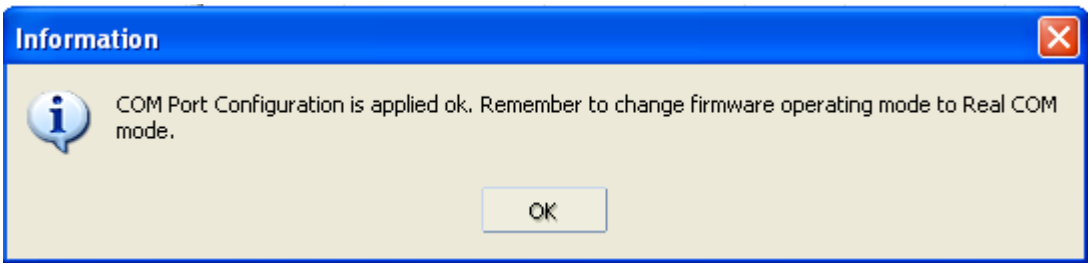
12 Na konci přiřazování stisknout Apply, aby se změny zazálohovaly:



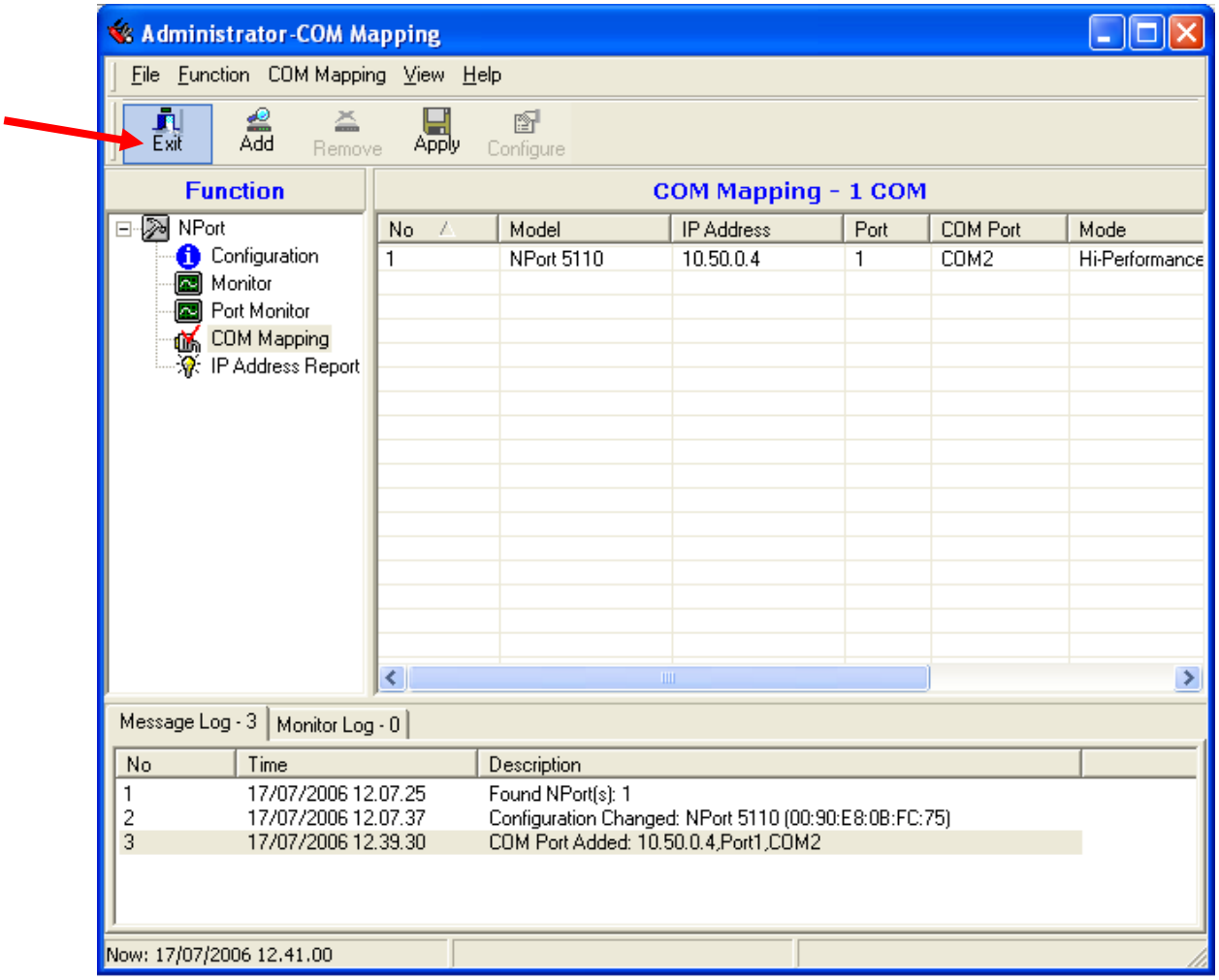
13 Potvrdit stisknutím Yes:



14 Potvrdit stisknutím OK:



15 Rozhraní bylo nakonfigurováno. Je možné vyjít z programu kliknutím na Exit:



Rady pro případ funkčních problémů mezi rozhraním RS232/Ethernet a PC

- Zkontrolovat kompatibilnost mezi nainstalovaným programem NPort Administrator Suite a případným antivirovým programem či firewallem nainstalovaným v PC

- Příkazem DOS “ping” zkontrolovat, zda adresa IP přiřazená rozhraní RS232/Ethernet není duplikátem

- V případě, že není možné dosáhnout rozhraní RS232/Ethernet pomocí programu NPort Administrator Suite, proveďte následující testy:

    - Zkontrolovat dosažitelnost rozhraní z počítače PC připojeného ke stejnému HUB/SWITCH, k němuž je připojeno rozhraní

    - Zkontrolovat dosažitelnost ze serveru k HUB/SWITCH, k němuž je připojeno rozhraní

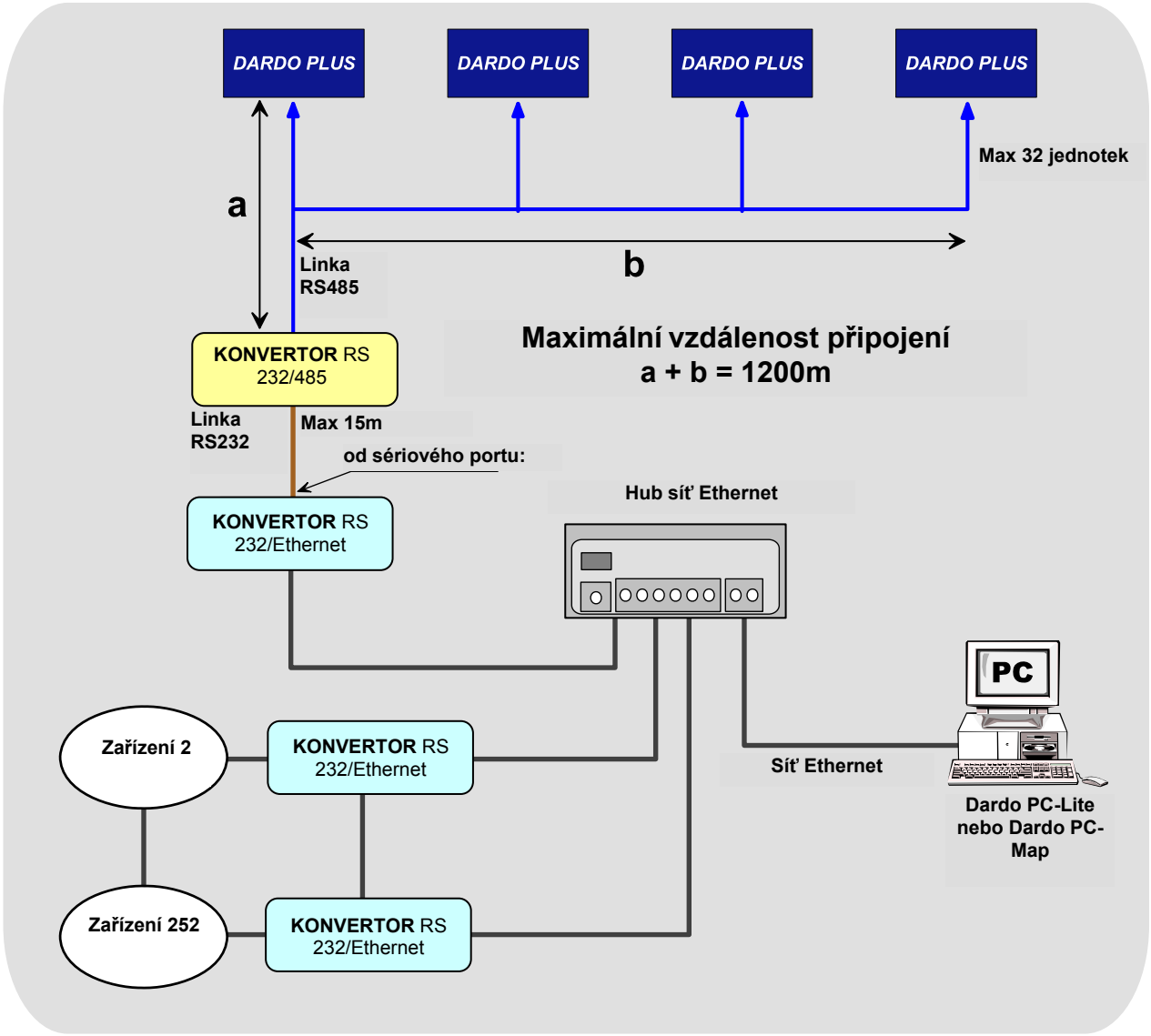
    - Je-li to možné, vymazat tabulku ARP z HUB/SWITCHe, k němuž je připojeno rozhraní, nebo v krajním případě provést restart HUB/SWITCHe a znovu provést testy dosažitelnosti

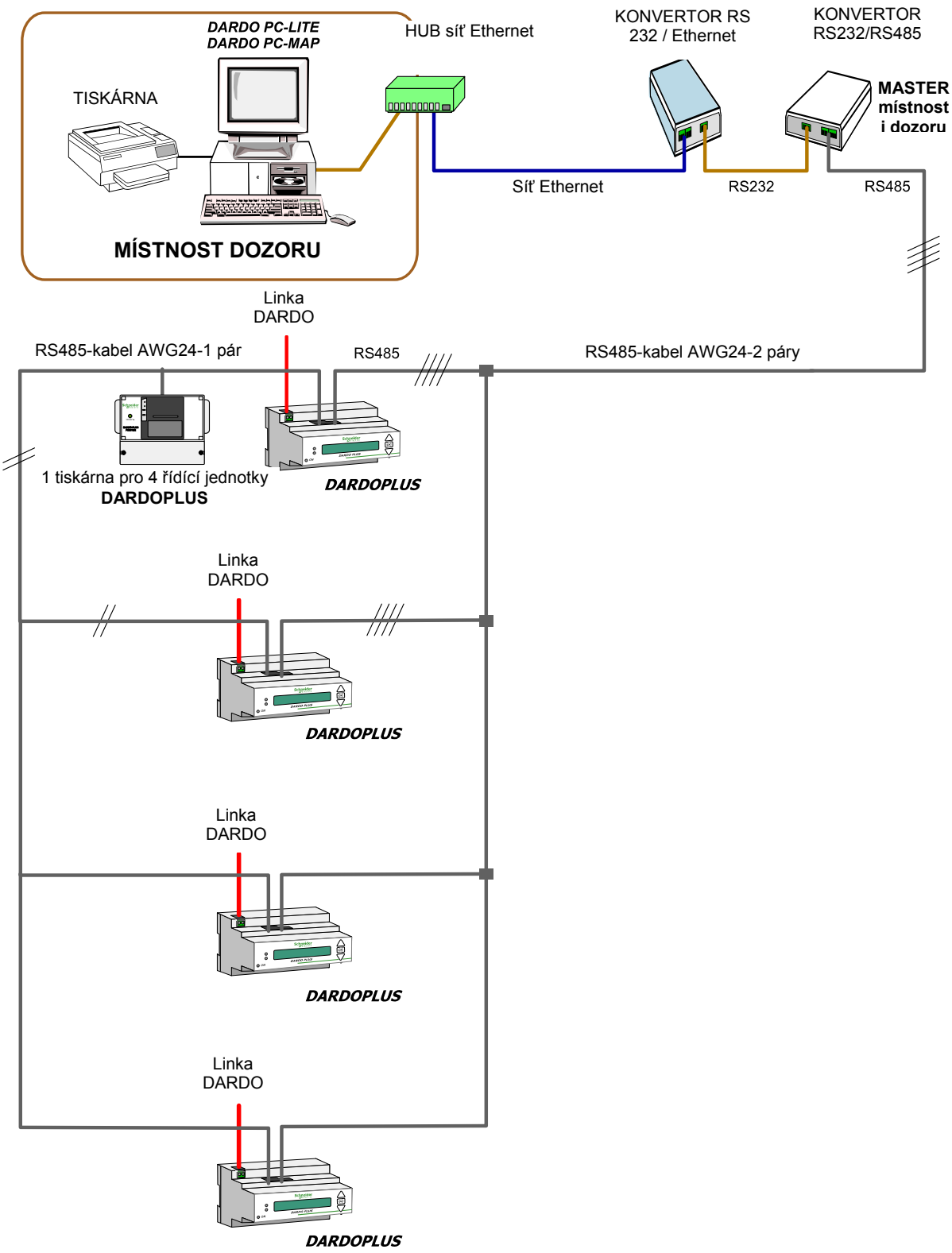
Dodatky

Maximální vzdálenosti kabelů

Pozn.: Řídící systém může provádět monitorování až 256 zařízení pohotovostního osvětlení (minus počet sériových portů počítače PC).

Příklad řídícího systému




DARDO PC-LITE
DARDO PC-MAP
TISKÁRNA
HUB síť Ethernet
KONVERTOR RS 232 / Ethernet
KONVERTOR RS232/RS485
MASTER místnost i dozoru
Síť Ethernet
RS232
RS485
MÍSTNOST DOZORU
Linka DARDO
RS485-kabel AWG24-1 pár
RS485
RS485-kabel AWG24-2 páry
1 tiskárna pro 4 řídící jednotky DARDOPLUS
DARDOPLUS
Linka DARDO
DARDOPLUS
Linka DARDO
DARDOPLUS
Linka DARDO
DARDOPLUS

Poznámky

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Inledning

Läs detta avsnitt före alla andra och innan du sätter igång med några som helst åtgärder på/invid produkten.

RS232/Ethernet omvandlaren fungerar korrekt under förutsättningen att du använder nödutrustning från SCHNEIDER ELECTRIC.

Bruksanvisning

Vem vänder sig handboken till

Handboken vänder sig huvudsakligen till installationspersonal som har de kunskaper som krävs för att under betryggande säkerhet gripa in på både hård- och mjukvarusystem.

Handbokens vikt

Den här bruksanvisningen innehåller all information som krävs för att kunna installera och använda **RS232/Ethernet omvandlaren.**

Kopiering, mångfaldigande och överföring av denna dokumentation till tredje part utan föregående skriftlig auktorisation från SCHNEIDER ELECTRIC är förbjuden.

SCHNEIDER ELECTRIC förbehåller sig rättigheten att utan förvarning införa ändringar i syfte att förbättra sina produkter. Till följd av detta kan det inträffa att handbokens bilder inte sammanfaller med levererad utrustning.

Försäkra er om att utförda uppdateringar som tillverkaren skickar ut infogas i bruksanvisningen.

Förvara handboken

Handboken ska förvaras väl för framtida användning under apparatens hela livslängd samt göras tillgänglig vid eventuell ny installation av apparaten.

Använda symboler

Inuti handboken har vi använt en rad symboler vars uppgift är att fånga användarens uppmärksamhet och framhäva anmärkningar, påbud, föreskrifter och normer som gäller apparatens säkerhet och korrekta användning samt operatörens hälsa.

Nedan listas de mest använda symbolerna.

Allmän info:

OPERATIV ANMÄRKNING ELLER NORM AV ALLMÄN KARAKTÄR

Påbud eller föreskrifter (fyrkantiga):

STRÖMTILLFÖRSEL MÅSTE FRÅNSKILJAS (ÖPPNA HUVUDSTRÖMBRYTAREN)

Varningsskyltar som gäller personens och/eller utrusntingens säkerhet (trekantiga):

ALLMÄN FARA FÖR PERSONEN OCHR/ELLER UTRUSTNINGEN

ELEKTRISK FARA FÖR PERSONEN OCH/ELLER UTRUSTNINGEN (STÖTRISK)

Föreskrifter och varningar

- ✓ Om du behöver teknisk informaiton angående installationen, produkternas användning eller vid funktionsfel, kontakta SCHNEIDER ELECTRIC.
- ✓ Installation och/eller andra ingrepp på apparaten måste utföras av personal som är behörig enligt gällande lokala bestämmelser, i lolaler som är lämpligt skyddade mot damm och fukt.
- ✓ Montera ett frånskiljningssystem uppströms apparatens matning.
- ✓ **Av säkerhetsskäl och för att garantera att RS232/Ethernet omvandlaren ska kunna fungera så bra som möjligt, MÅSTE det finnas ett jordningssystem som uppfyller gällande föreskrifter.**
- ✓ Innan du sätter igång med iunderhållsarbeten måste apparaten frånkopplas elnätet
- ✓ **Bilden på en snedsträckad sopbehållare som sitter på apparaten anger att produkten ska lämnas till speciella auktoriserade anläggningar som sörjer för korrekt avfallshantering, i syfte att begränsa dess negativa effekter på människan och miljön. Kontakta gällande lokala myndighet för mera information om avfallsstationen placering och gällande regler**

VIKTIGT!
ATT INTE FÖLJA GIVNA INSTALLATIONS- OCH BRUKSANVISNINGAR KAN GÖRA GARANTIN OGILTIG.

Säkerhet

- **RS232/Ethernet omvandlaren måste installeras** på lämplig plats, där den skyddas från damm och stoft, fuktighet och starka ångor.
- Installations- och/eller underhållsarbeten måste alltid utföras med **strömtillförseln frånkopplad**. Av denna anledning bör systemet förses med lämplig frånskiljare uppströms apparatens matning.
- Använd endast nätaggregatet som medföljer apparaten.

- Kontrollera att nätaggregatet jordas effektivt och säkert.
- RS232/Ethernet omvandlarens goda drift garanteras bara om den används tillsammans med utrustning från SCHNEIDER ELECTRIC.

Förpackningens innehåll

Öppna förpackningen och kontrollera att alla komponenter finns med:

(1) **RS232/Ethernet omvandlare**
(2) Nätaggregat 230 Vac/12 Vdc
(3) CD som innehåller programvara för produktens konfiguration och allmän dokumentation,
(4) Bruks- och underhållsanvisning

Allmän beskrivning

RS232/Ethernet omvandlaren tillåter att överföra genom ett Ethernet nätverk, samtalet mellan **övervakningsdatorn** och specifika system för kontroll och hantering av nödbelysningsnätverk i serien **DARDO**.

Avsedd användning

RS232/Ethernet omvandlarna installeras på övervakningssystem från:

- **PC** i fjärrstation med operativsystemet **MS Windows 98** eller högre, konfigurationsprogrammet **Nport Administrator Suite** och övervaknings- och hanteringsprogrammet **DARDO PC LITE**.
  N.B.: programmet med tillhörande manual uppdateras ofta. CD-skivans innehåll kan därmed variera.

  Vår rekommendation är att alltid läsa filerna **Readme.txt** och **Version.TXT** inuti CD-skivan. Alla eventuella uppdateringar finns däri

- DARDOPLUS. styrenheter

Varje övervakningssystem kan bestå av 256 anläggningar, minus antalet seriella portar i PC:n.
Varje anläggning består då av en **RS232/Ethernet omvandlare** och en **RS232/485 omvandlare**, kopplade till högst 32 styrenheter.

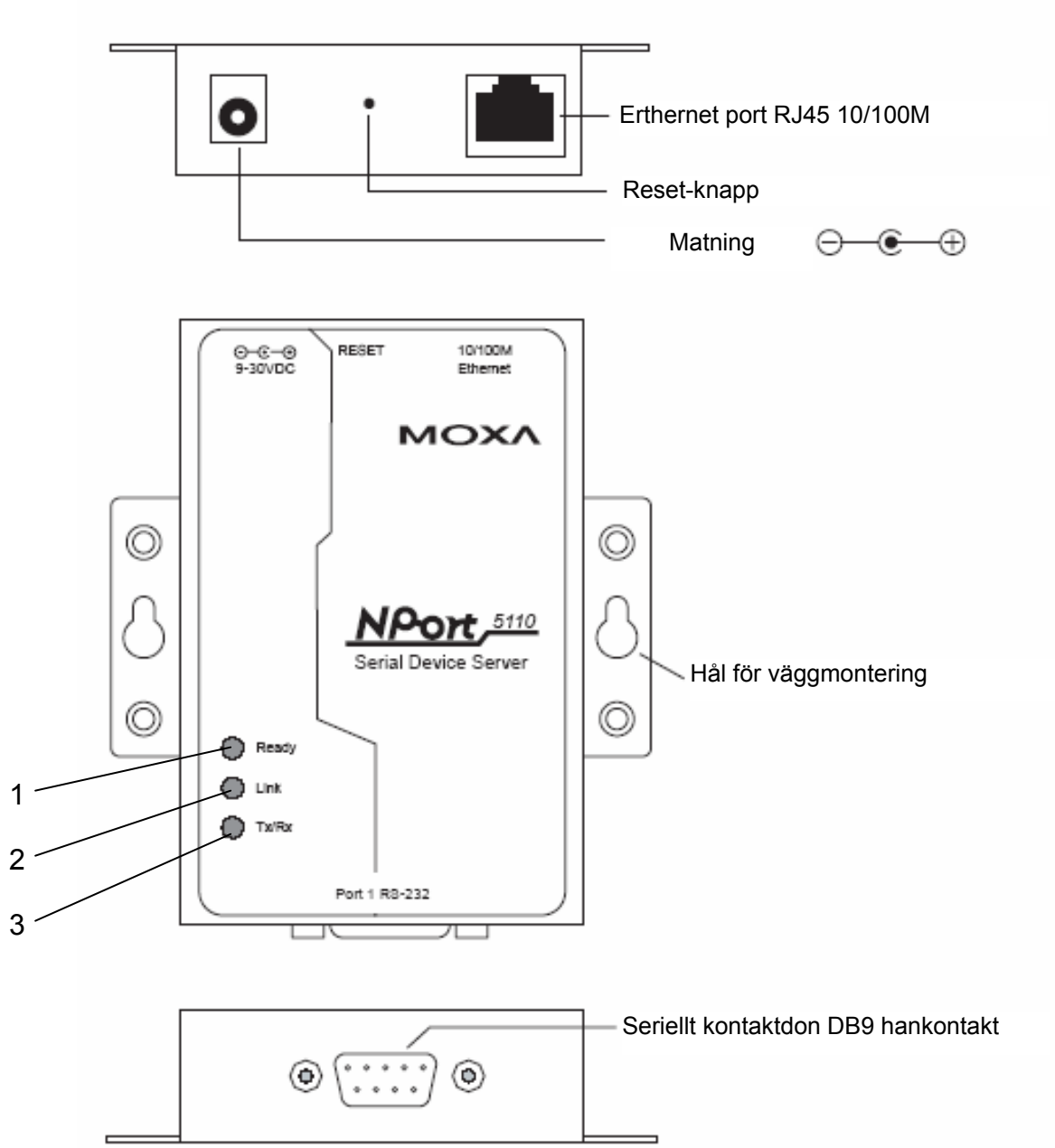
Tekniska data

RS232/Ethernet omvandlare

Allmänna egenskaper

• Matning:	9 – 30 Vdc
• Upptagning:	200 mA (9V); 165 mA (12V)
• Uteffekt:	1,8 (9V): 1,98W (12V)
• Seriell port	RS232 (9 polig)
• Ethernet port:	10/100 Mbps (RJ-45 kontaktdon)
• Anslutningskabel RS232:	AWG24*
• Hölje:	Aluminium (1 mm)
• Mått (Bredd x Höjd. x Djup):	75,2 x 80 x 22 mm (med hållare för fastspänning) 52 x 80 x 22 mm (med hållare för fastspänning)
• Drifttemperatur:	min. 0 °C max +55 °C
• Lagringstemperatur:	min. -20 °C max +85 °C
• Relativ fuktighet (ingen kondens):	5 – 95%
• Vikt:	134 g
• Begränsare överspänningsskydd (seriell port):	15 kV ESV (elektrostatisk urladdning)
• Magnetisk isolering (ethernet port):	1,5 kV
• Skydd för matningslinjen:	4 kV Burst (EFT), EN 61000 – 4 – 4 2 kV Surge, EN 61000 – 4 – 5
• Intyg:	CE klass A, FCC klass A, CUL, TÜV

(*) Skärmad kabel 3 trådar, sekt. 0,51 mm^2 med styv tråd eller 0,16mm^2 med böjlig tråd, typ AWG24. Rekommenderas för anslutningar upp till 15 m.



Reset-knapp

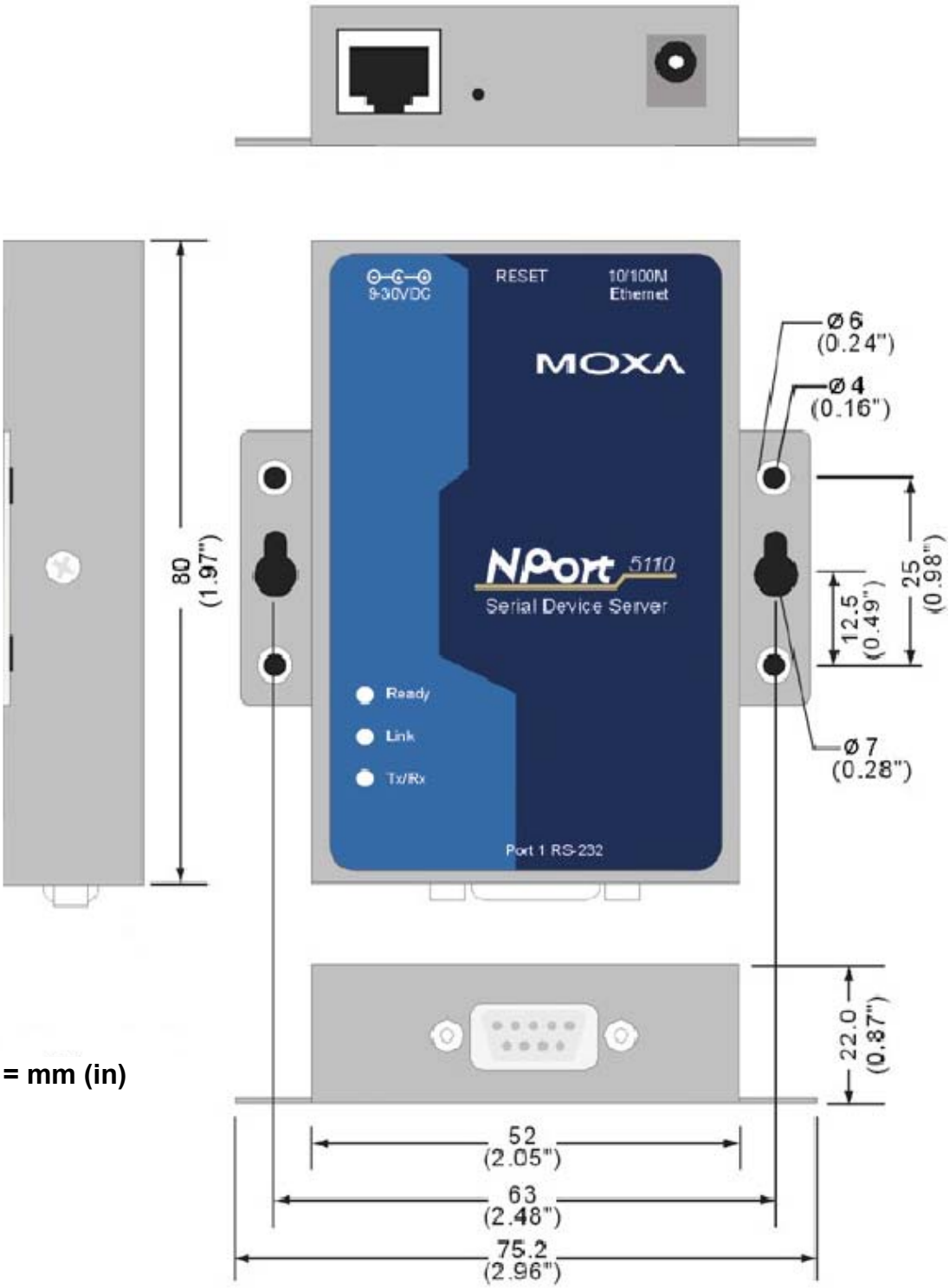
Håller du Resetknappen intryckt i 5 sekunder konfigureras omvandlaren efter fabriksinställningarna:

- Använd ett spetsigt föremål för att trycka in knappen.
- När knappen trycks in börjar lysdioden Ready (1) att blinka.
- Initialkonfiguration laddas upp efter att lysdioden Ready (1) har slutat blinka (efter cirka 5 sekunder).
- Nu kan du släppa knappen.

Lysdiodernas funktionssätt

Lysdiodens namn	Lysdiodens färg	Lysdiodens funktion
Ready (1)	Rött	Fast sken: Omvandlaren är matad och intiering pågår. Blinkar Konflikt med IP adress eller nätserver som ej svarar på rätt sätt.
	Grönt	Fast sken: Omvandlaren är matad och fungerar korrekt. Blinkar: Omvandlaren har lokaliserats av programvaran NPort Administrator.
	Släckt	Omvandlaren är ej matad eller matningsfel.
Link (2)	Orange	Ethernet uppkoppling 10 Mbs.
	Grönt	Ethernet uppkoppling 100 Mbs.
	Släckt	Ethernet kabeln är urkopplad eller kortslutad.
Tx / Rx (3)	Orange	Seriell port tar emot data.
	Grönt	Seriell port skickar data.
	Släckt	Inga data skickade eller mottagna via den seriella porten.

Mekaniska egenskaper



Måttenhet = mm (in)

Matare för gränssnitt RS232/Ethernet

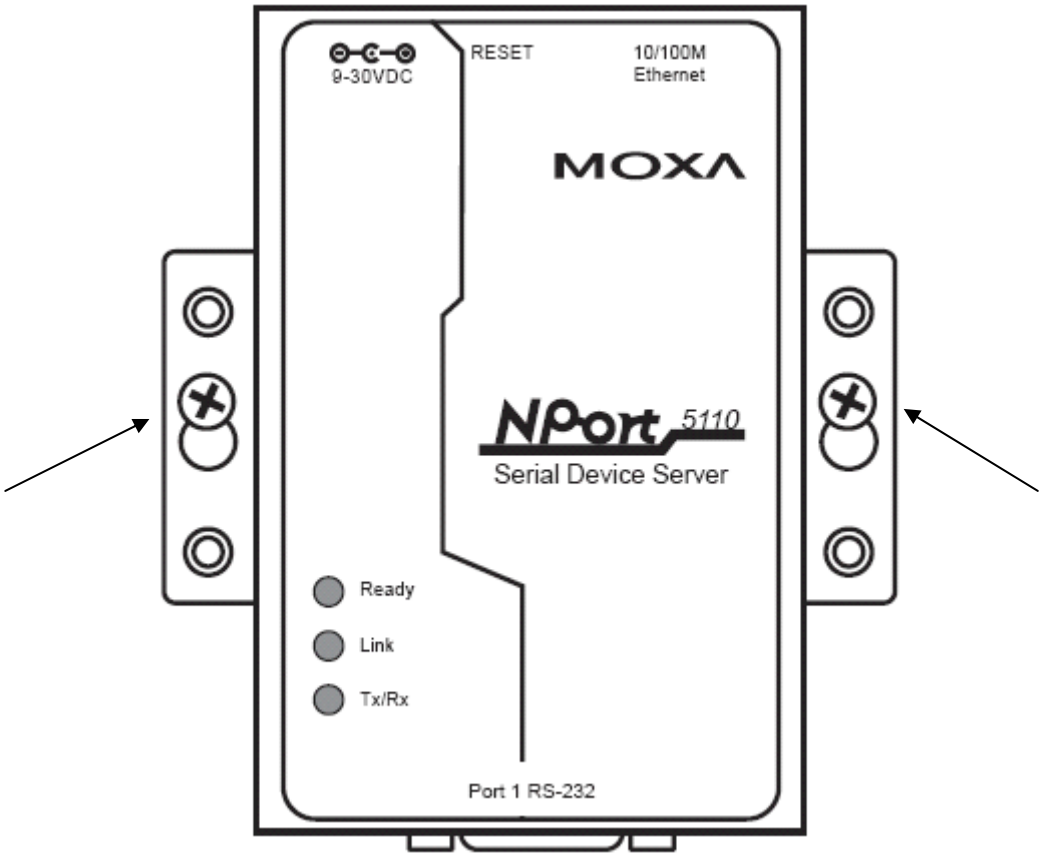
Allmänna egenskaper

- Matning: 230 Vac 50 Hz, 49 mA
- Utgång: 12 Vdc 400 mA
- Uteffekt: 6,5 W
- Mått (Bredd x Höjd. x Djup): 51 x 63 x 41 mm
- Drifttemperatur: min. 0 °C max +55 °C
- Lagringstemperatur: min. –20 °C max +85 °C
- Relativ fuktighet (ingen kondens): 5 – 95%
- Vikt: 317,5 g
- Kabellängd: 1818 mm
- Intyg: CE, TÜV

Installation

Montera gränssnittet

Omvandlaren kan väggmonteras med hjälp av de hål som finns på sidovingarna.



Systemkrav

För att installera gränssnittet RS232/Ethernet måste du först kontrollera att ditt system uppfyller begärda minimikrav:

Operativsystem:	Windows 98, 2000, NT 4.0, XP (+sp2)
Processor:	Pentium 200MHz eller högre
Minne:	64 MB Ram
Hårddisk:	2 GB
Grafiskt kort:	upplösning 1024 x 768
CD-läsare	
Muspekare	
Kompatibel Windows 98 tangentbord	
1 seriell port	
Nätverkskort Ethernet 10/100 Mbps	

Information angående installationen

För att installera l'**omvandlaren RS232/Ethernet** måste man utföra följande steg i angiven följd

1) Anslut omvandlaren till ett Ethernet nätverk (se paragrafen Anslutning till Ethernet nätet)

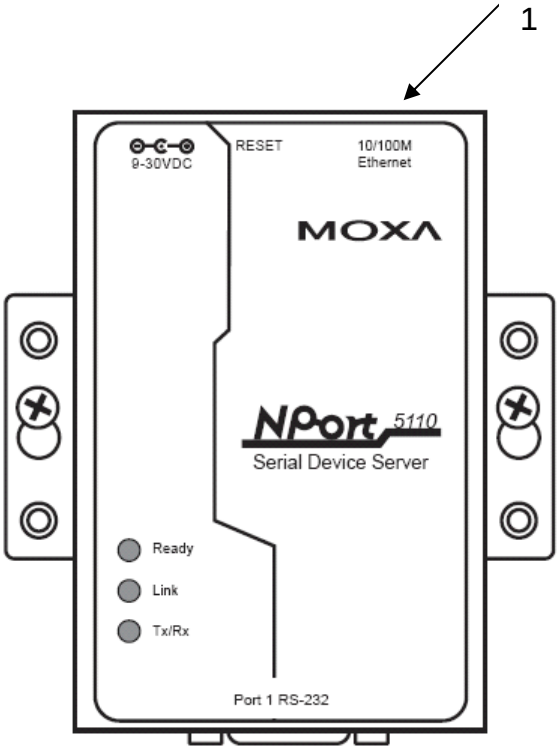
2) Anslut omvandlaren till porten**RS232** i **DARDO RS232/485 omvandlare**
   (se paragrafen Anslutning av seriell kabel).
   Se anslutningsexemplet med övervakningssystem från SCHNEIDER ELECTRIC
   (se avsn. Bilagor)

3) Mata omvandlaren genom levererad nätaggregat (se paragrafen Anslutning av nätaggregat)

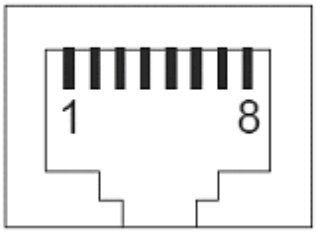
4) Konfigurera omvandlaren (se Avsnitt 5) efter att ha installerat konfigurationsprogrammet, i medföljande CD-skiva.

Anslutning avEthernet nät

Koppla porten 10/100 M Ethernet (1) dell'i omvandlaren till nätets HUB/SWITCH apparat via en **RJ45 kabel**.



Omvandlarens 10/100 M Ethernet kabel

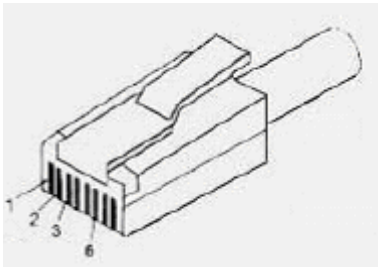


STIFT nummer	Ethernet signaler
1	Tx+
2	Tx-
3	Rx+
6	Rx-

RJ45 kabel

Använd en rak RJ45 kabel:

Stift nr 1	Dataöverföring +
Stift nr 2	Dataöverföring -
Stift nr 3	Datamottagning +
Stift nr 4	Reserverad
Stift nr 5	Reserverad
Stift nr 6	Datamottagning -
Stift nr 7	Reserverad
Stift nr 8	Reserverad



Anslutningar:
C = sida **Omvandlaren RS232/Ethernet**
H = sida HUB/SWITCH för Ethernet nät

VIKTIGT!:

AMVÄMD EN UTP KABEL (OSKÄRMAD OCH TVINNAD PARKABEL) I KLASS 5, SOM PASSAR DET ANVÄNDA ETHERNET NÄTET.

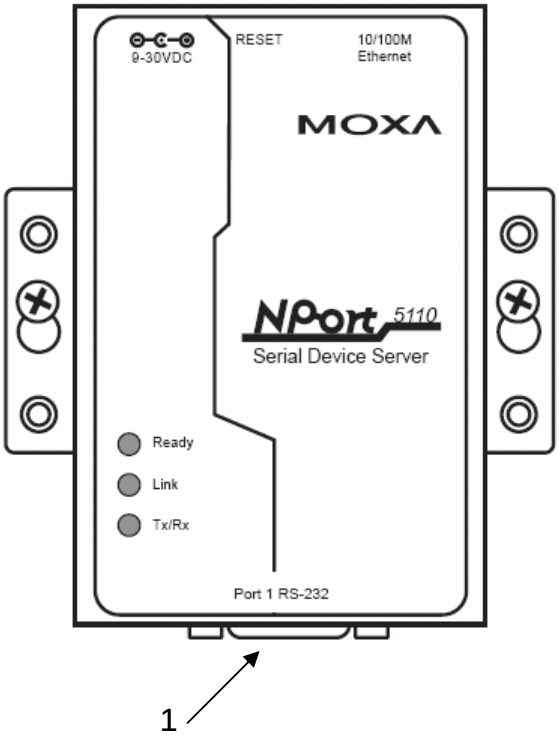
KONTROLLERA ATT ANVÄND HUB/SWITCH MONTERAR 10/100 MBPS PORTAR MED AUTOSENSING.

kONTROLLERA OM DET FINNS EVENTUELLA FILTER PÅ ACCESSPORTARNA I HUB/SWITCHENS KONFIGURATION (T.EX. KONFIGURATIONEN “PORT SECURITY”).

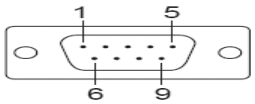
KONTROLLERA ÄVEN OM DET PÅ LAN NÄTVERKETS KOMPONENTER FINNS FÖRBUD MOT TCP/IP PROKOLLET (T.EX. KONFIGURATIONER AV TYPEN “ACCESS CONTROL LISTS”)

Anslutning av seriell kabel

Koppla den seriella porten RS232 (1) i**omvandlaren RS232/Ethernet** till porten RS232 i en **DARDO RS232/485 omvandlare**, som i sin tur är kopplad till ett övervakningssystem från SCHNEIDER ELECTRIC (se Avsn. BILAGOR)



Omvandlarens RS232 port



STIFT nummer	Använda RS232 signaler
1	---
2	RxD
3	TxD
4	---
5	GND
6	---
7	---
8	---
9	---

Seriell kabel

Den seriella kabeln du ska använda måste vara av pin to pin skärmad typ med 3 trådar (typ AWG24: avsn.0,51 mm^2 med styv tråd eller 0,16 mm^2 med böjlig tråd). Kontaktdonen på trådens ändar är honkontakter av DB9 typ:

Anslutning av STIFT för DB9 kontaktdon i den seriella kabeln

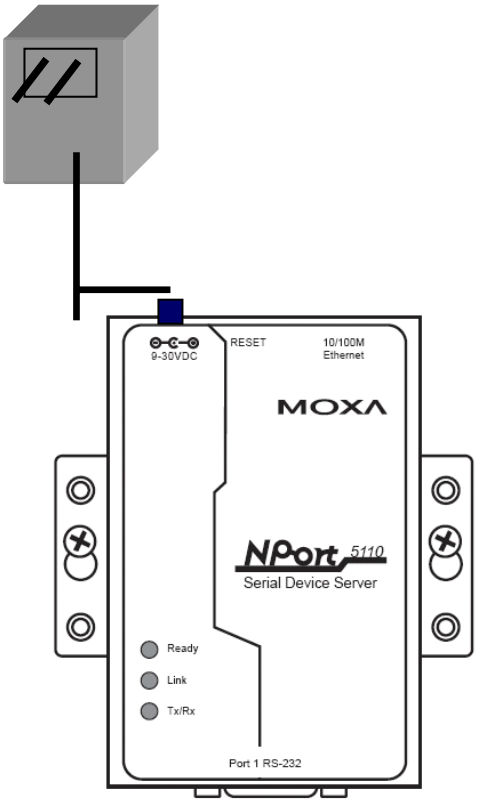
Sidan RS232/Ethernet omvandlare	**2**	———	**2**	**Sidan DARDO RS232/RS485 omvandlare**
	3	———	**3**	
	5	———	**5**	

VIKTIGT!:

LÄNGDEN PÅ DEN SERIELLA KABELN FÅR EJ ÖVERSKRIDA 15 METER.

Anslutning av nätaggregat

Koppla medföljande nätaggregat till **omvandlaren RS232/Ethernet**:



Koppla omvandlaren till 230 Vac 50 Hz elnätet

Konfigurera RS232/Ethernet omvandlaren

För att kunna använda l'**omvandlaren RS232/Ethernet** måste den först konfigureras. För att åstadkomma detta måste följande steg utföras i given följd.

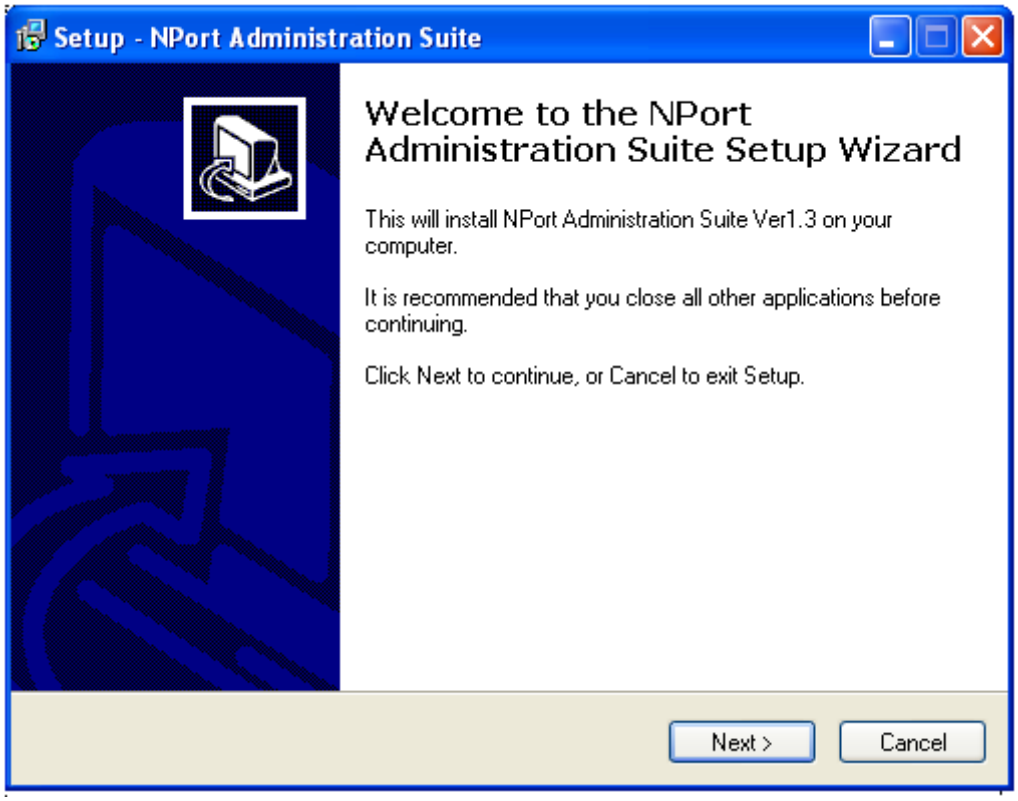
Installera konfigurationsprogrammet

Installera konfigurationsprogrammet på **PC** i övervakningssystemet

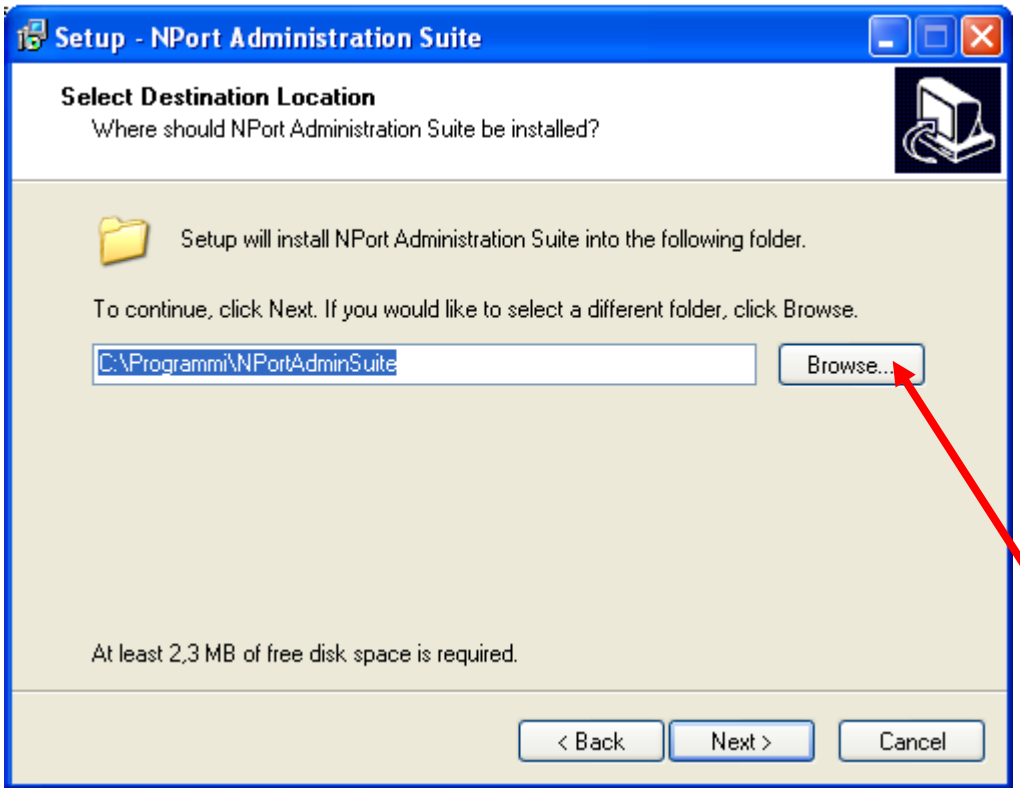
1 Mata in levererad CD skiva i datorns CD-ROM enhet, använd programmet "Filhanteraren" för att komma in på CD skivan: **\NPort 5110\Software\Windows**. Starta filen **setup.exe**

VIKTIGT!:

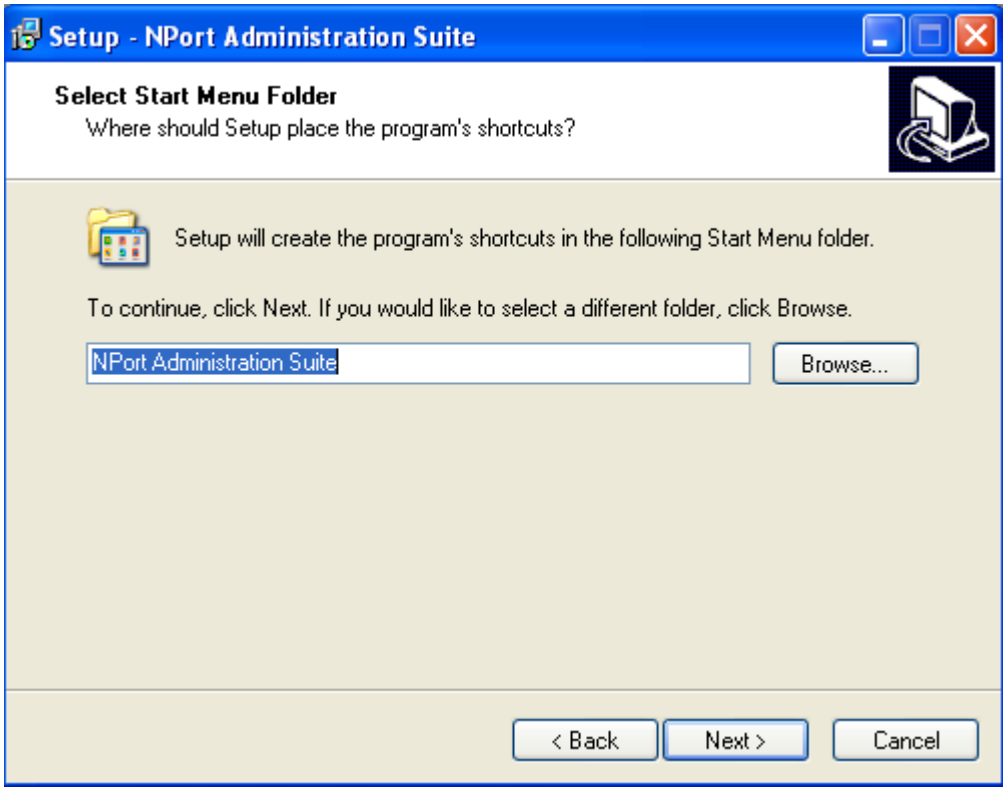
PROGRAMVARAN MED TILLHÖRANDE HANDBOK UPPDATERAS OFTA OCH DETTA INNEBÄR ATT CD-SKIVANS INNEHÅLL KAN VARIERA.
DET KAN HÄNDA ATT SKÄRMBILDERNA INTE STÄMMER MED DE SOM VISAS PÅ FÖLJANDE SIDOR, PROCEDUREN FÖRBLIR DOCK DEN SAMMA.
VI REKOMMENDERAR ATT DU ALLTID LÄSER FILERNA **README.TXT** OCH **VERSION.TXT** INUTI CD-SKIVAN EFTERSOM DE INNEHÅLLER ALLA UTFÖRDA UPPDATERINGAR.



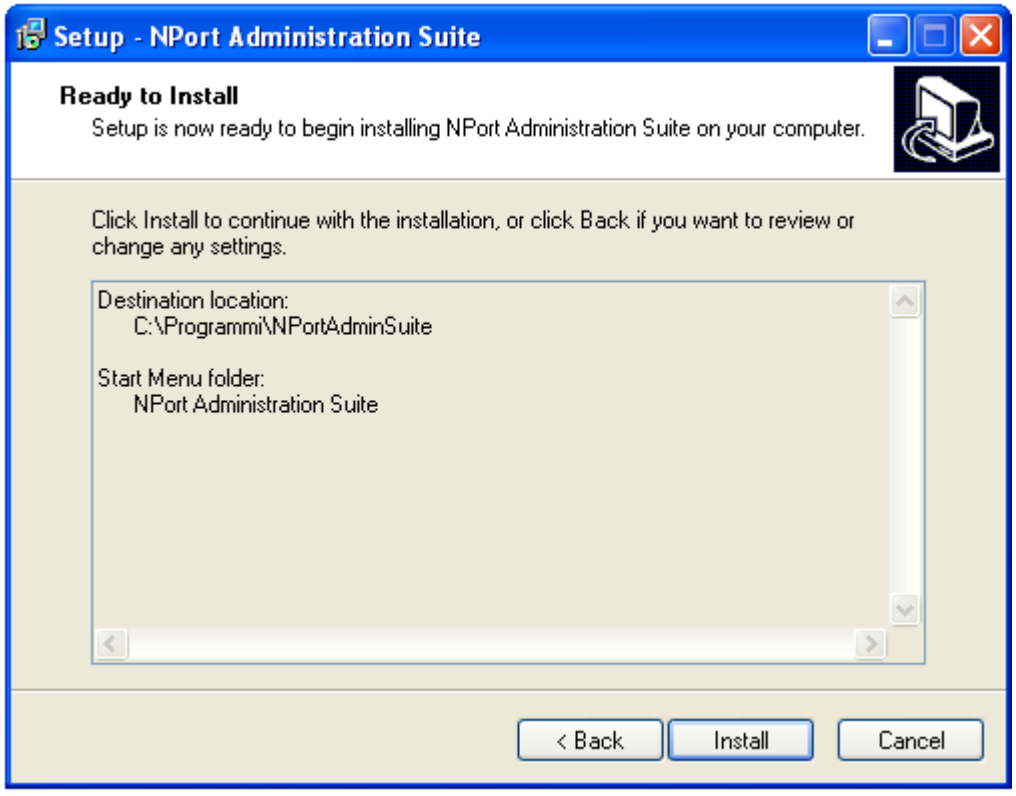
2 Klicka på **Next**



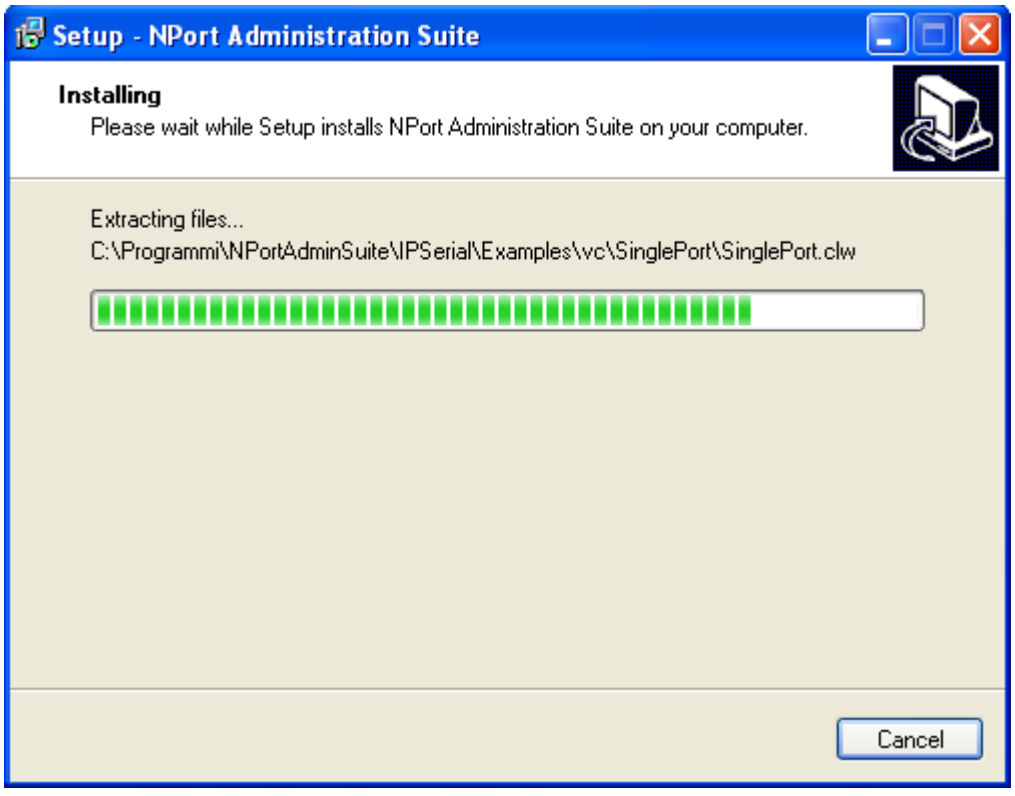
3 Klicka på **Next.** Vill du modifiera målkatalogen tryck på knappen (1), i fönstret som överlappas kan du välja önskad mapp.



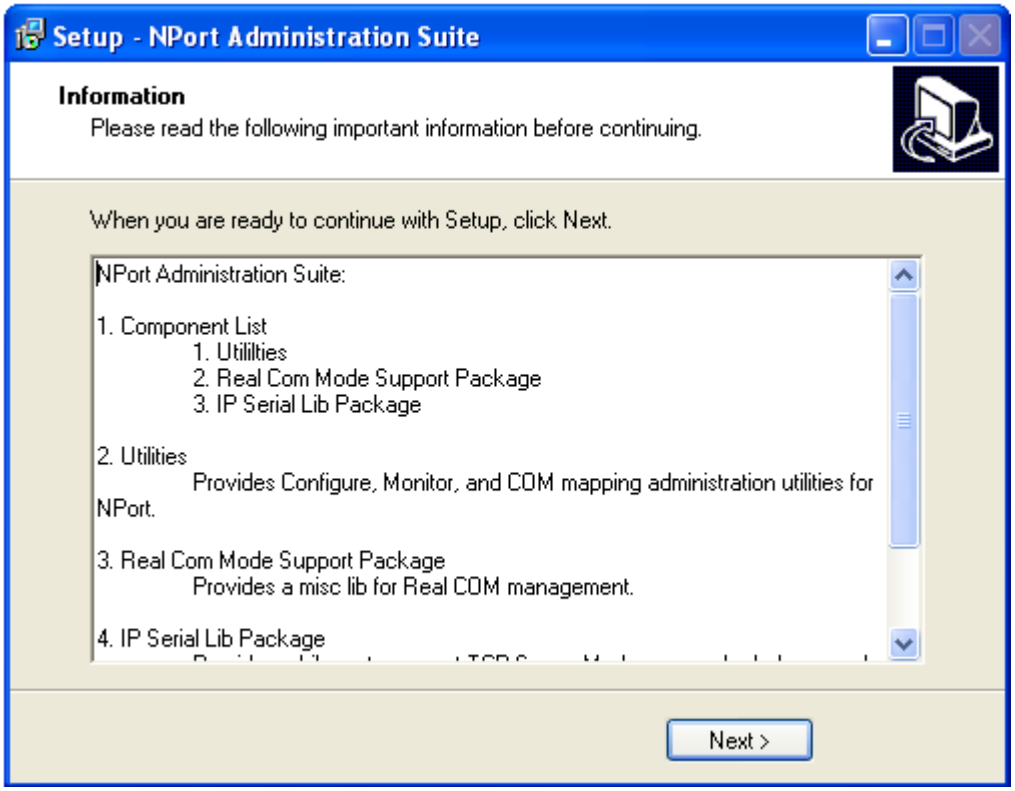
4 Klicka på **Next**



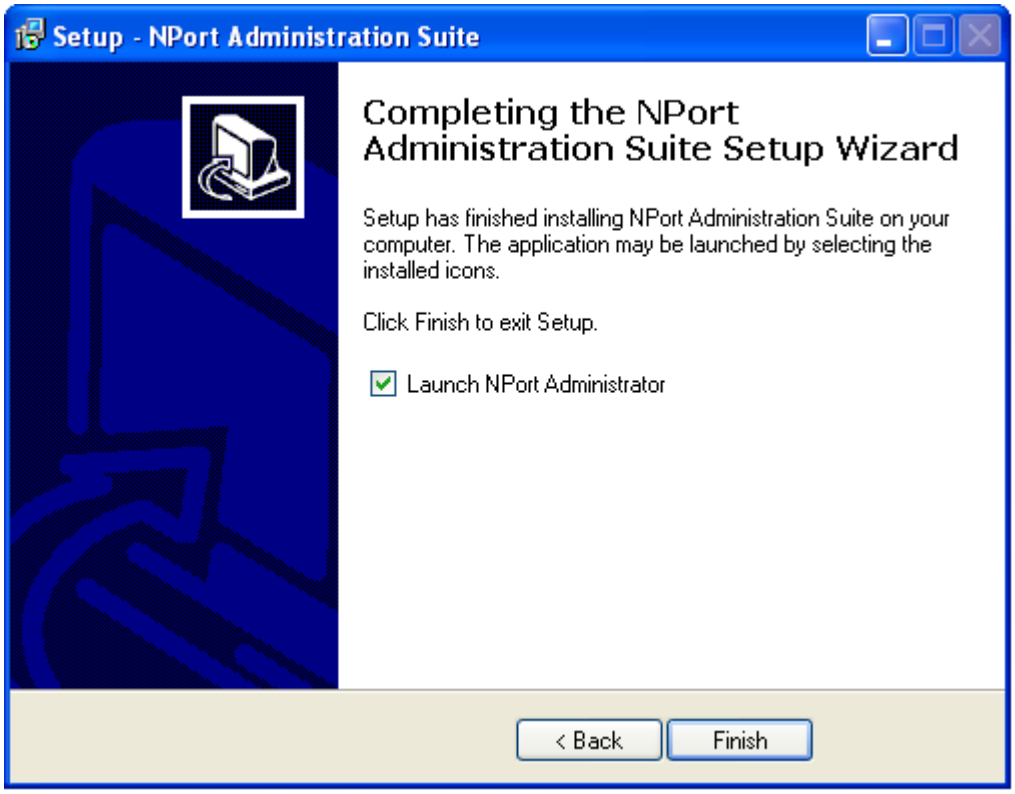
5 Klicka på **Install**



6 Fönstret anger installationens framskridande



7 Klicka på **Next**

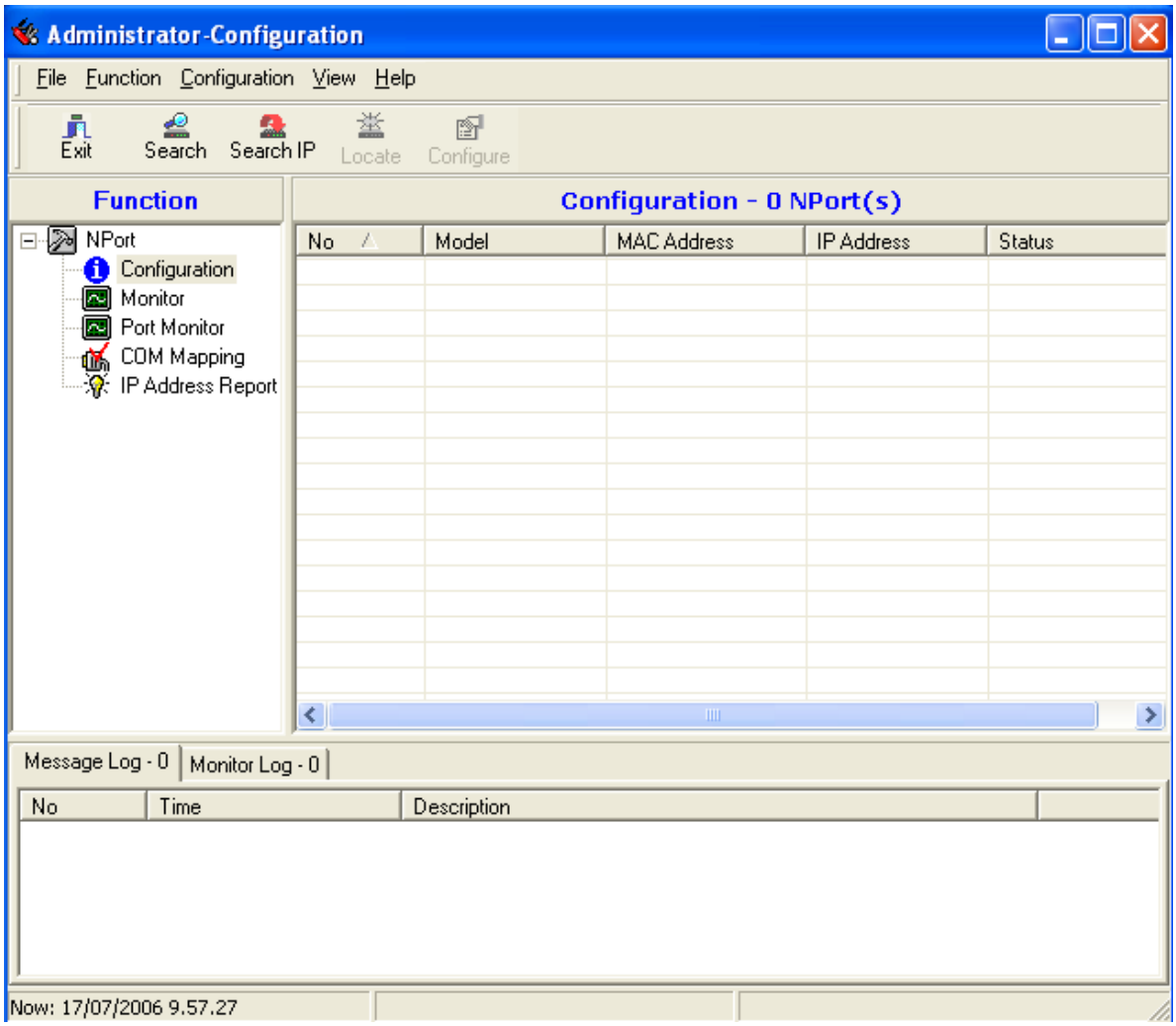


8 **Klicka på Finish** för att avsluta installationen och starta konfigurations-programmet

Konfiguration

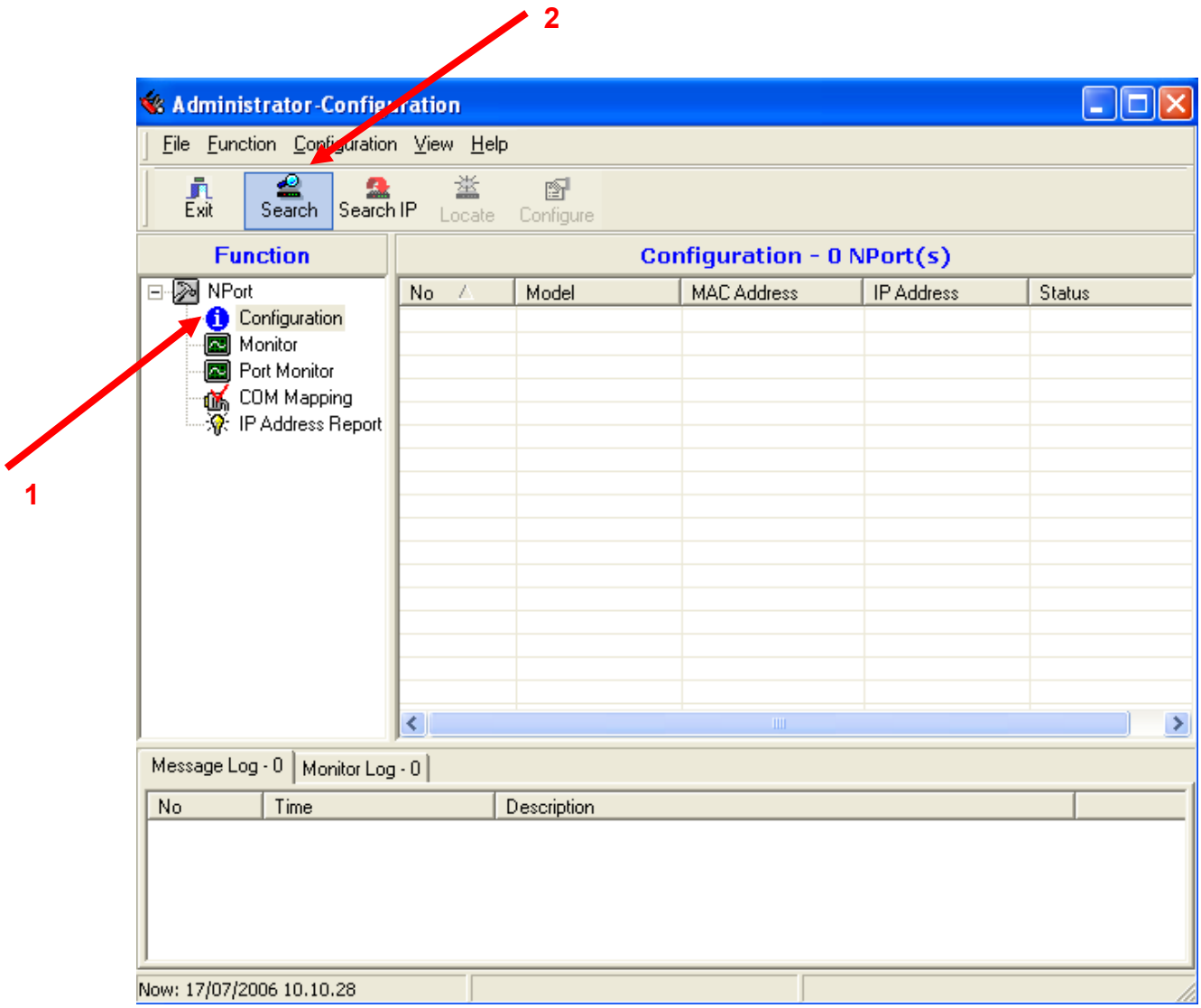
Konfigurationsprogrammet kommer igång automatiskt efter installationen (följ stegen i föregående avsnitt). För att starta programmet vid andra tillfällen klickar du på: **Start => Program => NPort Administration Suite => NPort Administrator**.

Efter programstart dyker följande startsida upp:

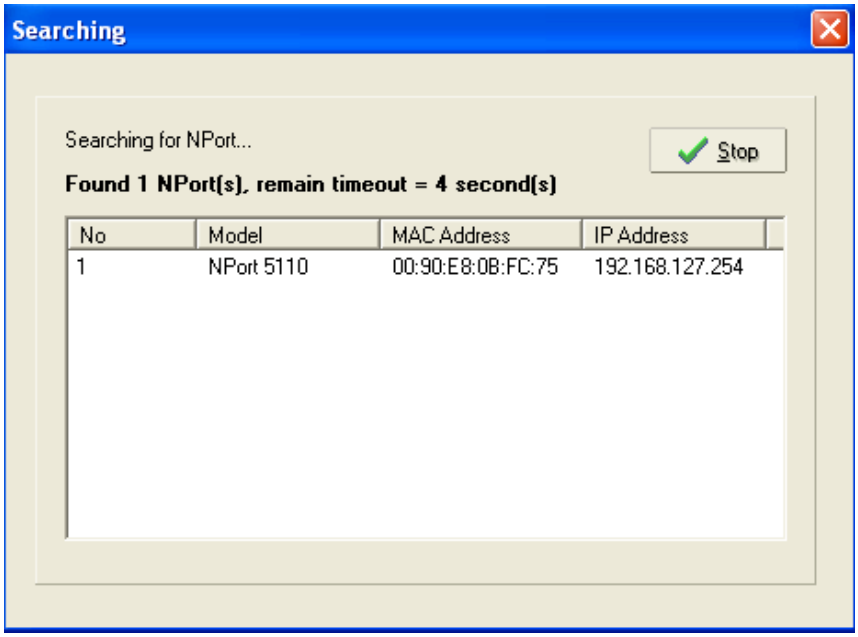


För att konfigurera måste du ha installerat omvandlaren enligt beskrivningen i avsnitte Installation. Följ angiven procedur inuti programmet:

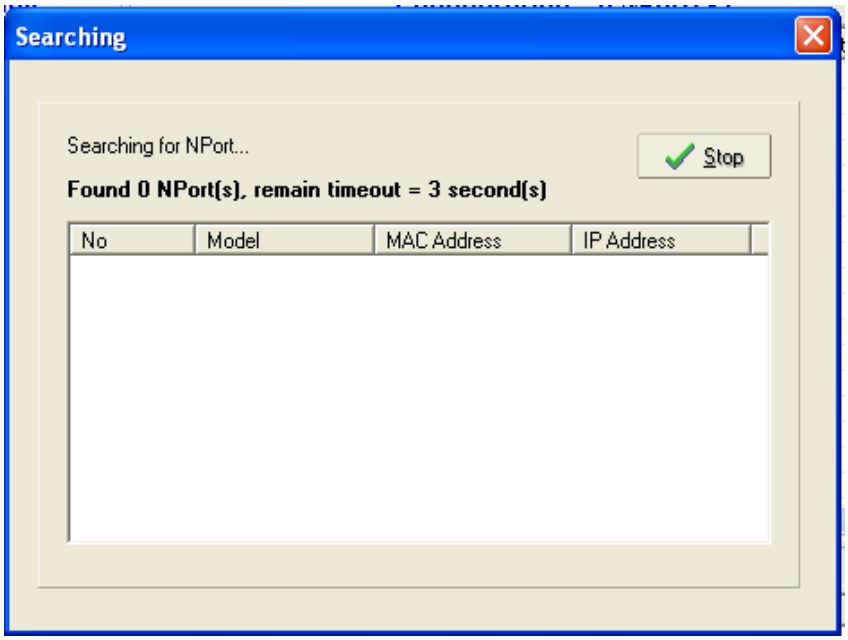
1 Välj Configuration (1) och klicka på Search (2):



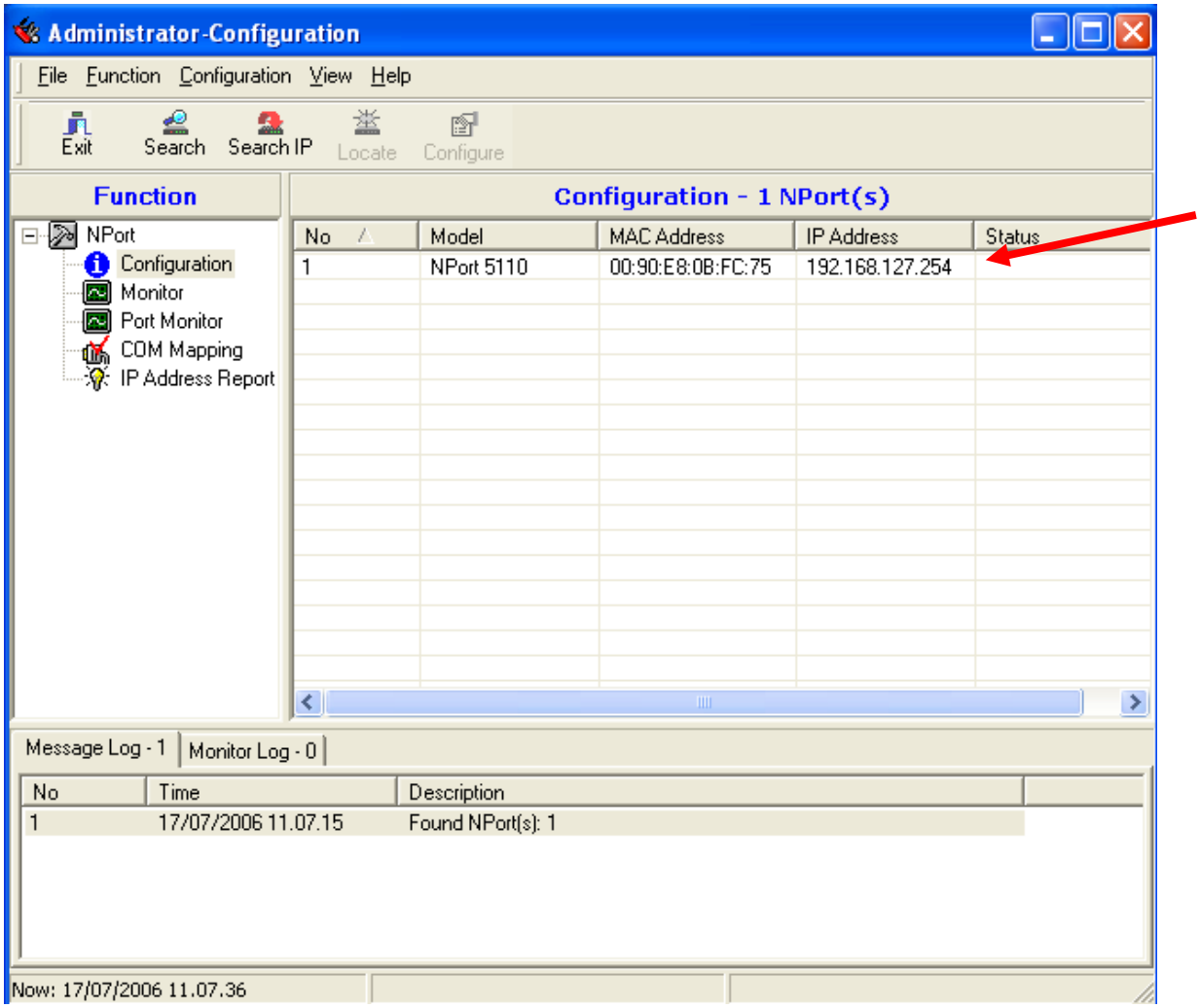
I någon sekund dyker följande fönster upp och signalerar att sökning och lokalisering av den till Ethernet nätverket anslutna omvandlaren är på gång.



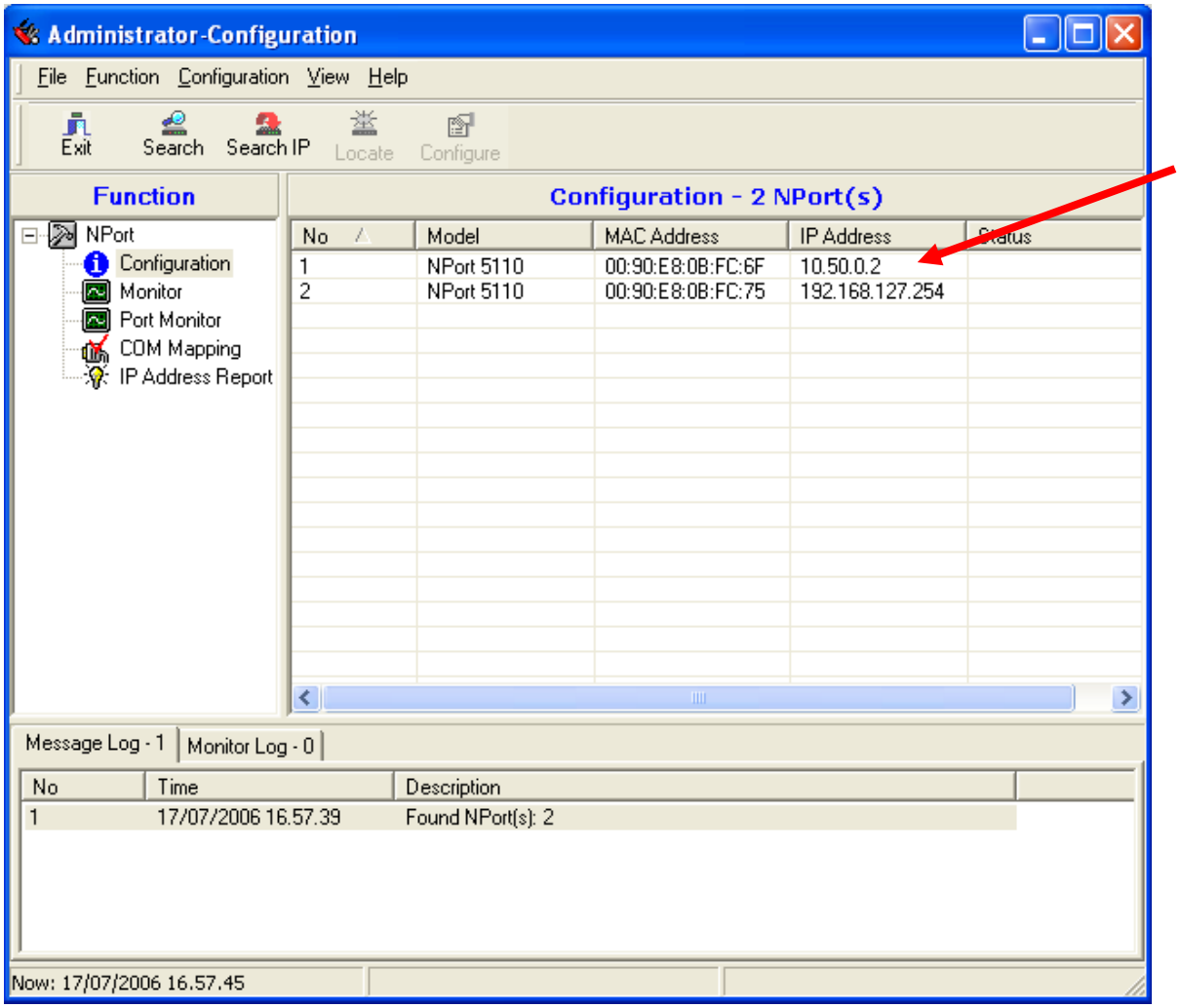
I fall omvandlaren ej kan detekteras därför att den inte är matad eller kopplad till Ethernet nätet, förblir fönstret tomt:



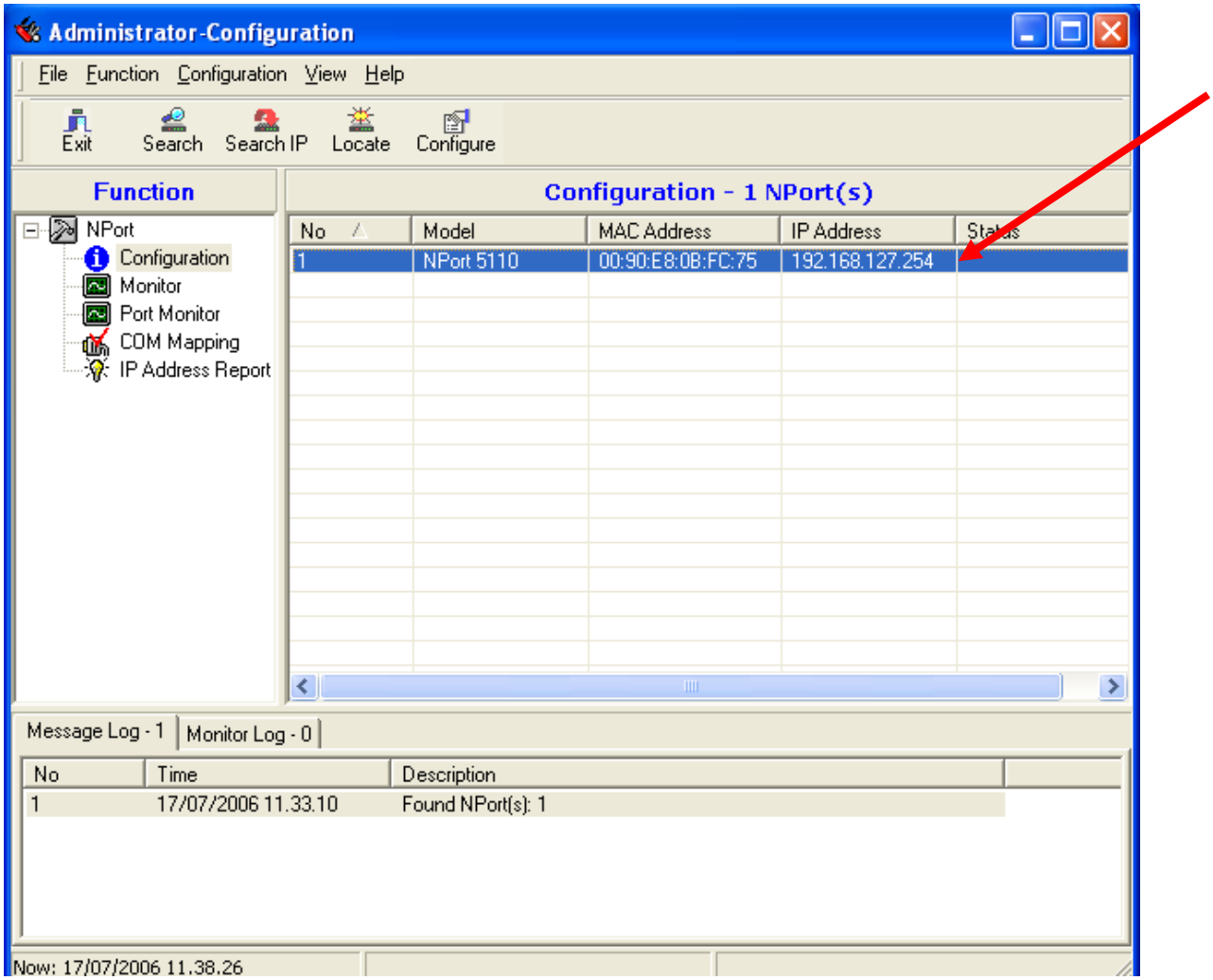
2 Omvandlaren som är ansluten till Ethernet nätet infikeras pår aden som innehåller även följande information: Numemr på anslten omvandlare, Modell, MAC Adress, IP Adress.
Kontrollera att alla data angående modell, MAC Addess, och IP Adress stämmer med det som anges på **RS232/Ethernet omvandlarens** dataskylt.



Eventuella ytterligare omvandlare som redan är anslutna till LAN snätet visas på adra rader:



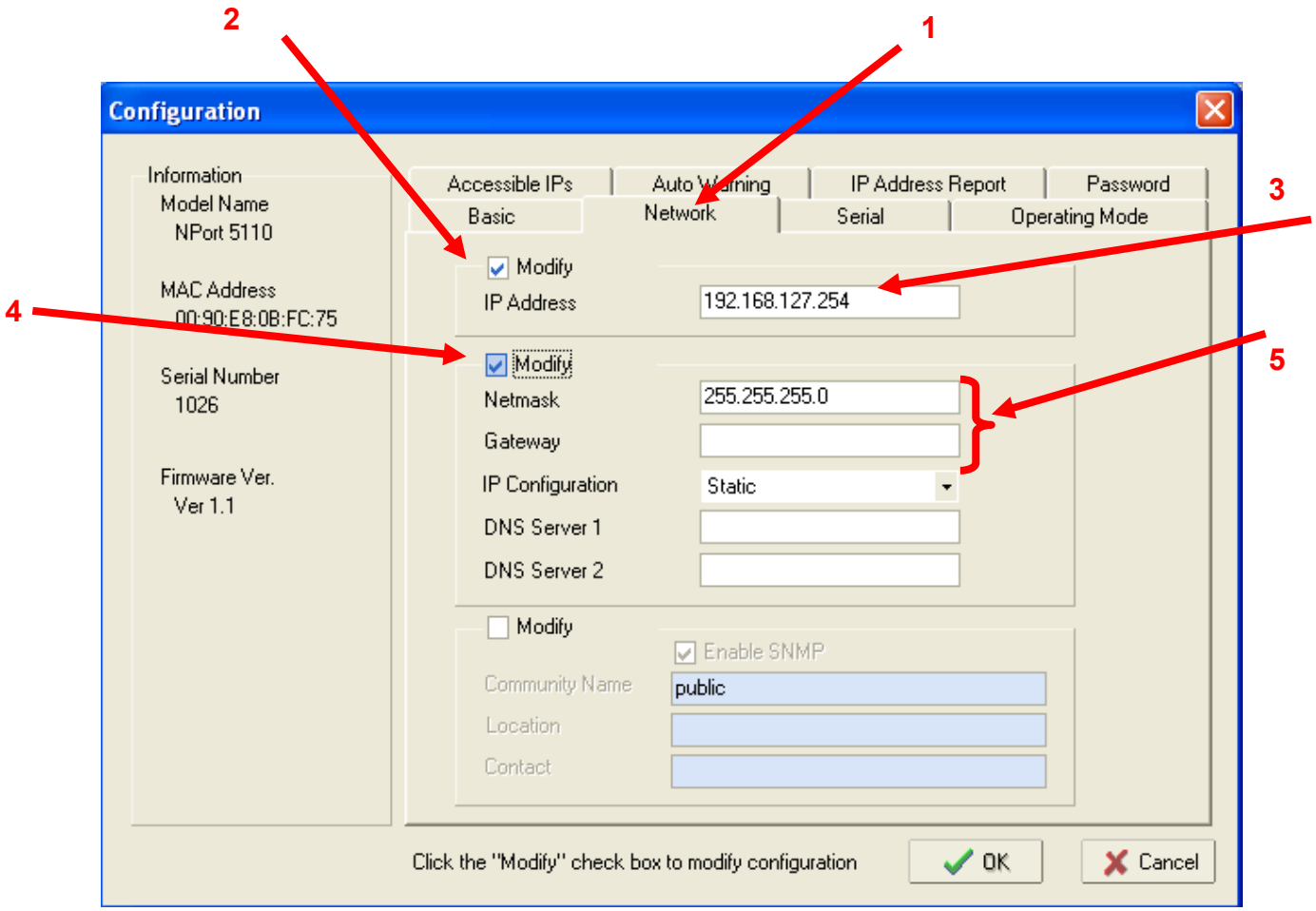
3 Till omvandlarens initiala ainställning har man använt sk nätverksparametrar. För att modifiera dessa data alltefter sitt eget nätverk måste du dubbelcklicka på raden om den anslutna omvandlaren:



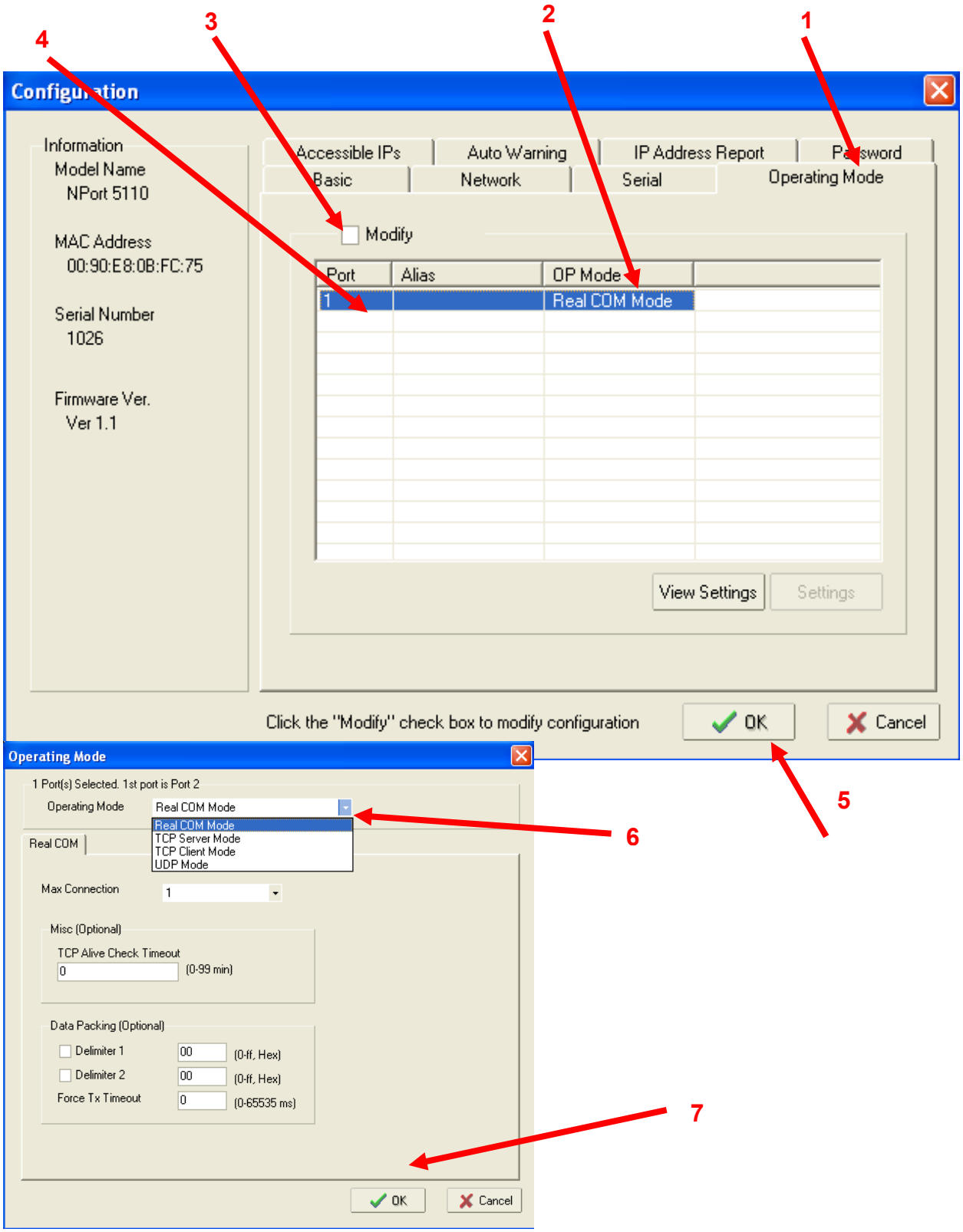
4 Välj alternativet Network (1). Klicka på Modify (2) och ställ in en IP adress i LAN nätet (3) som är ledigt. Klicka på Modify (4) och mata in de andra parametrarna (5).

N.B. Kontakta systemeadministratören för att få del av parametrarna för det LAN nätverk som omvandlarem kommer att installeras i:

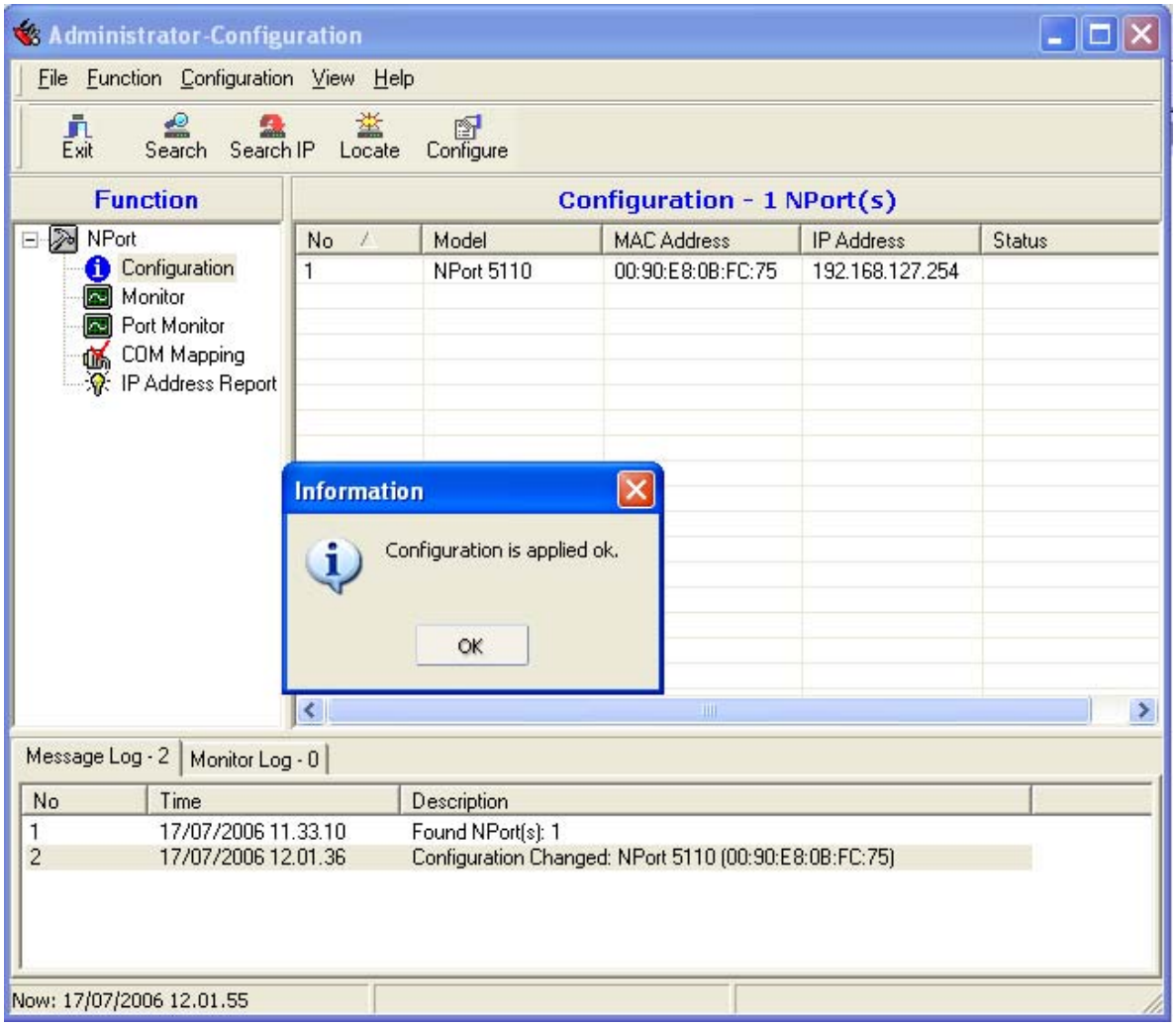
- IP ADRESS
- UNDERNÄTSMASK (ELLER NETMASK)
- GATEWAY ADRESS



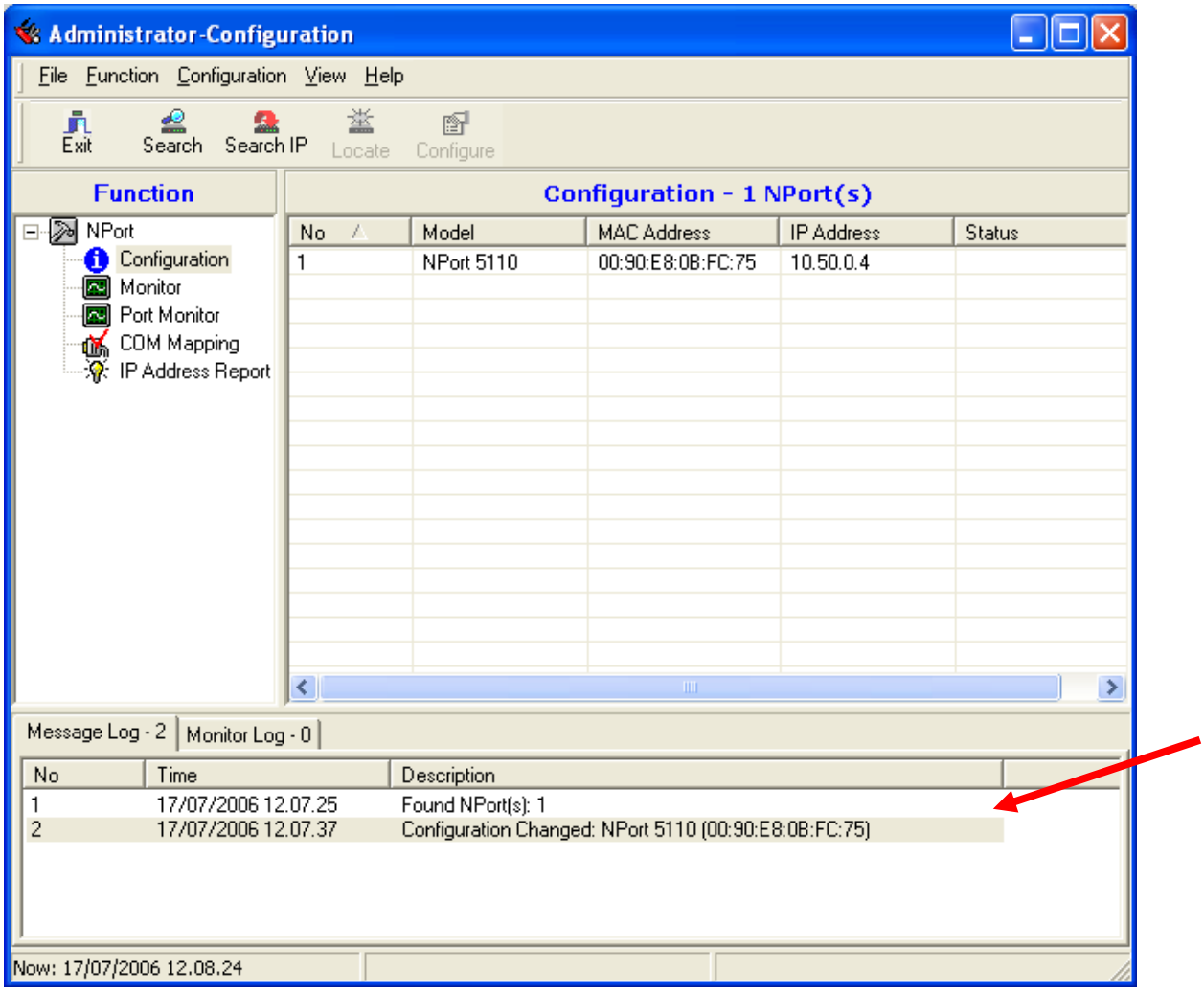
5 Välj alternativet Operating Mode (1), kontrollera att indikeringen Real COM Mode (2) är närvarande. I motsatt fall måste du bocka för alternativet Modify (3), dubbelklicka på raden (4) och markera posten Real COM Mode (6) på raden Operating Mode i det fönster som öppnas. Bekräfta med OK (7).
Stäng fönstret Configuration med OK (5).



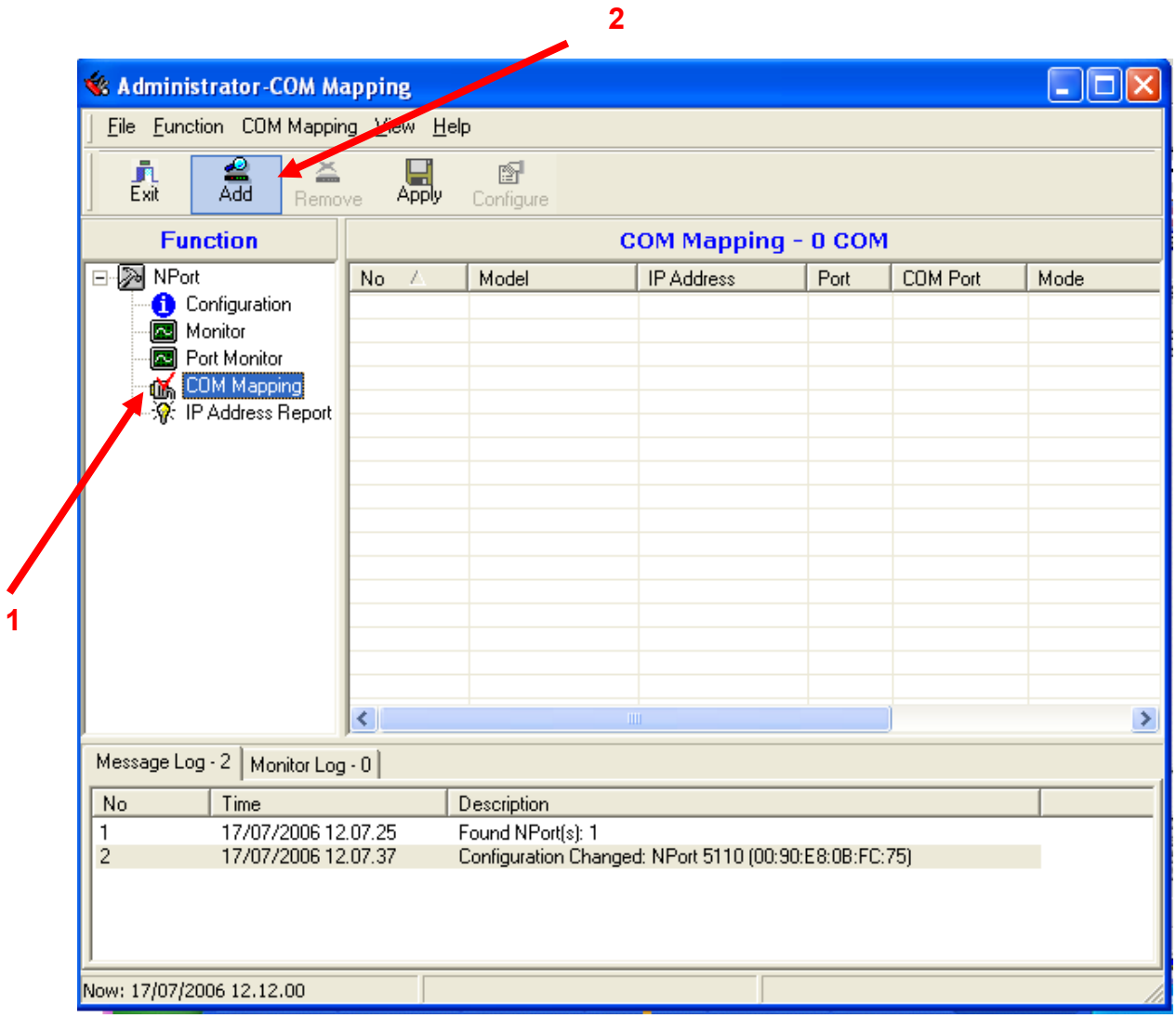
6 Modifieringen bekräftas av följand emeddelande, tryck OK.



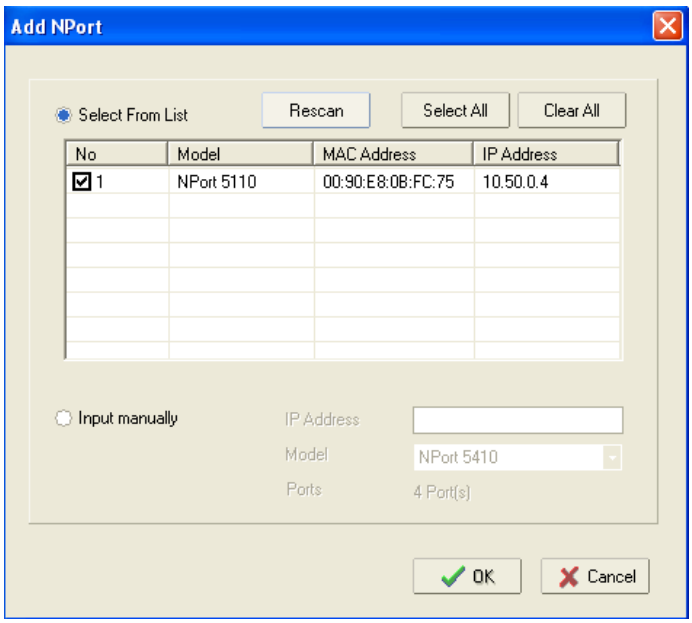
7 Fönstret längst ned anger sekvensen åtgärder som utförts sedan programmets initiala öppning.



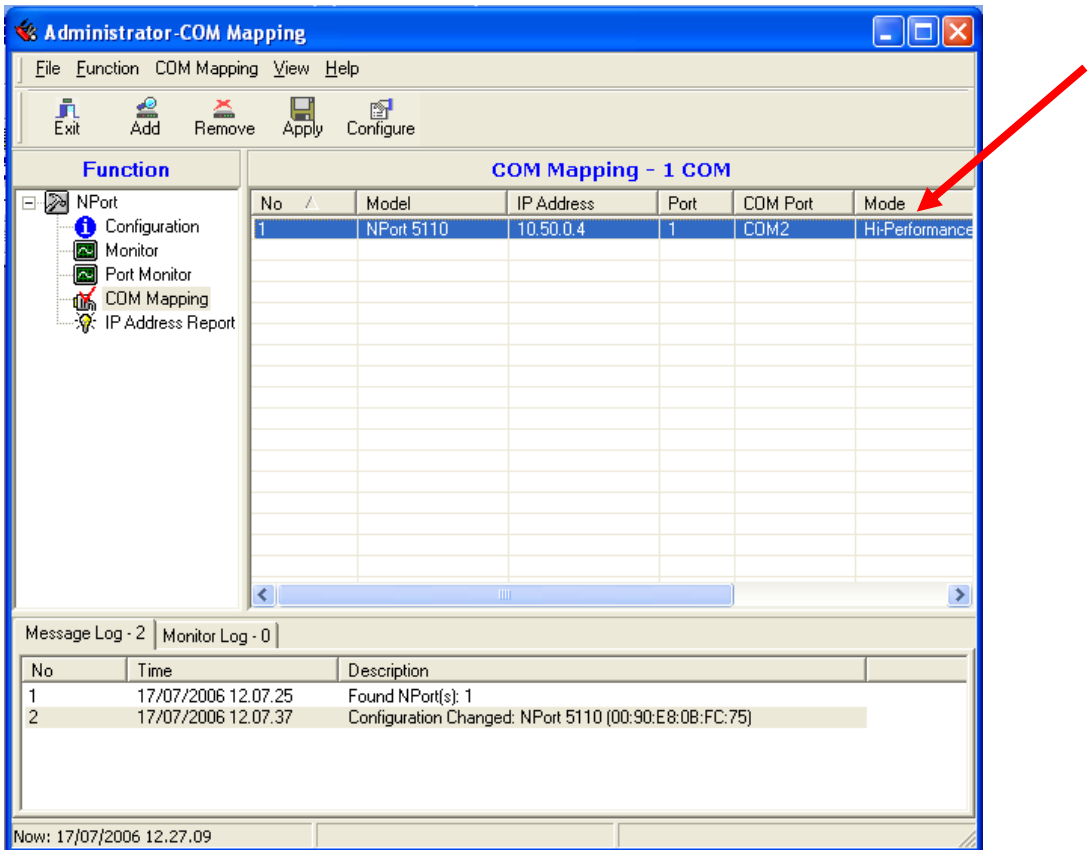
8 Välj posten COM Mapping (1) och klicka på Add (2):



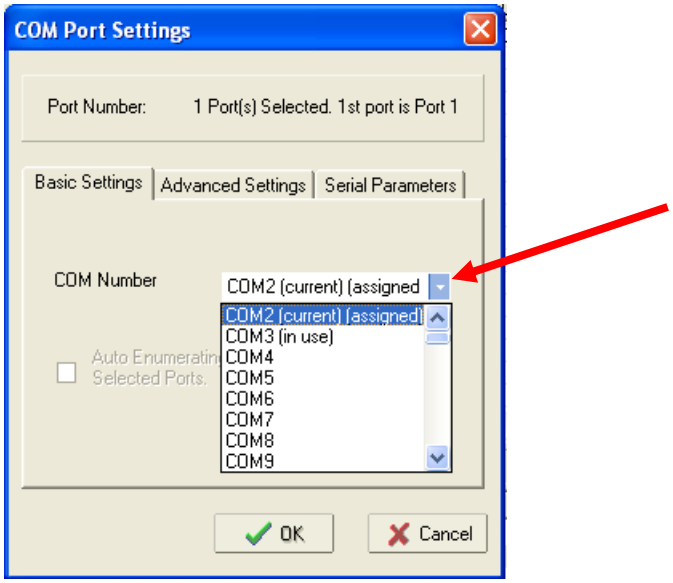
9 Bekräfta att omvandlaren infogats i den seriella portens konfiguration med OK. Om flera omvandlare listas, måste du bocka för den som har tidigare angiven IP Adress:



10 Programmet associerar automatiskt omvandlaren till en ledig seriell port på övervakningsdatorn. För att ändra inställningen måste du dubbelklicka på raden för den tillagda maskinvaran/ apparaten/anordningen:

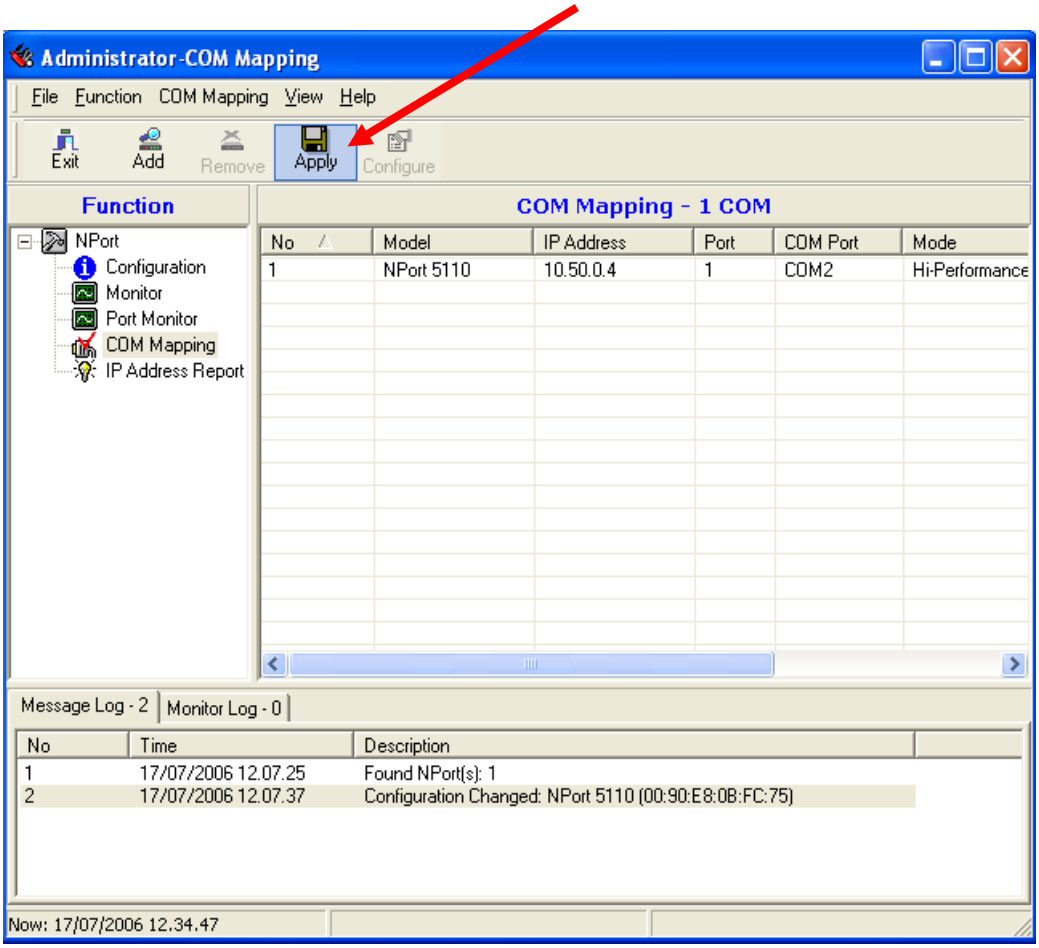


11 Fönstret nedan öppnas. Klicka på rullgardinsmenyn och väljoanvänd önskad seriell port (utan kommentar inom parentestecken). Tryck OK för att bekräfta.

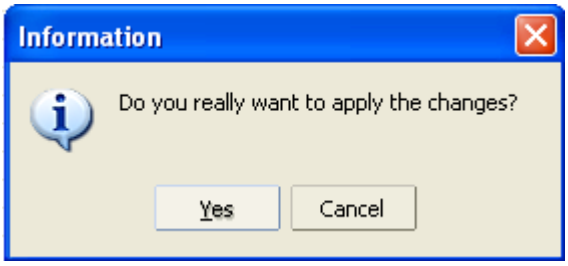


Den valda seriella porten kommer att användas i övervakningsprogrammet DARDO PC LITE/MAP för att sköta samtalet mellan program och anläggning.

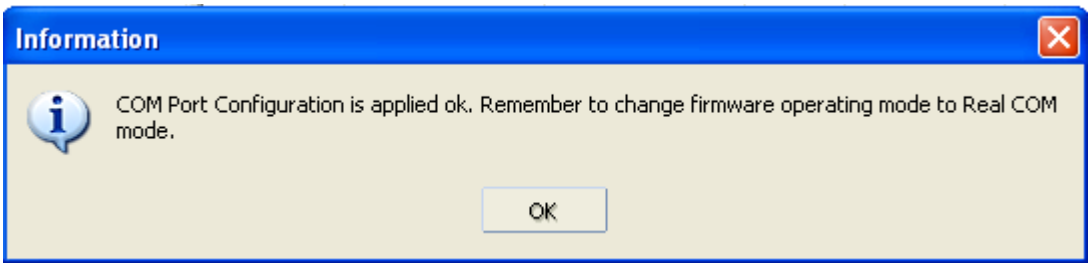
12 Efter tilldelningen, tryck Apply för att spara ändringarna:



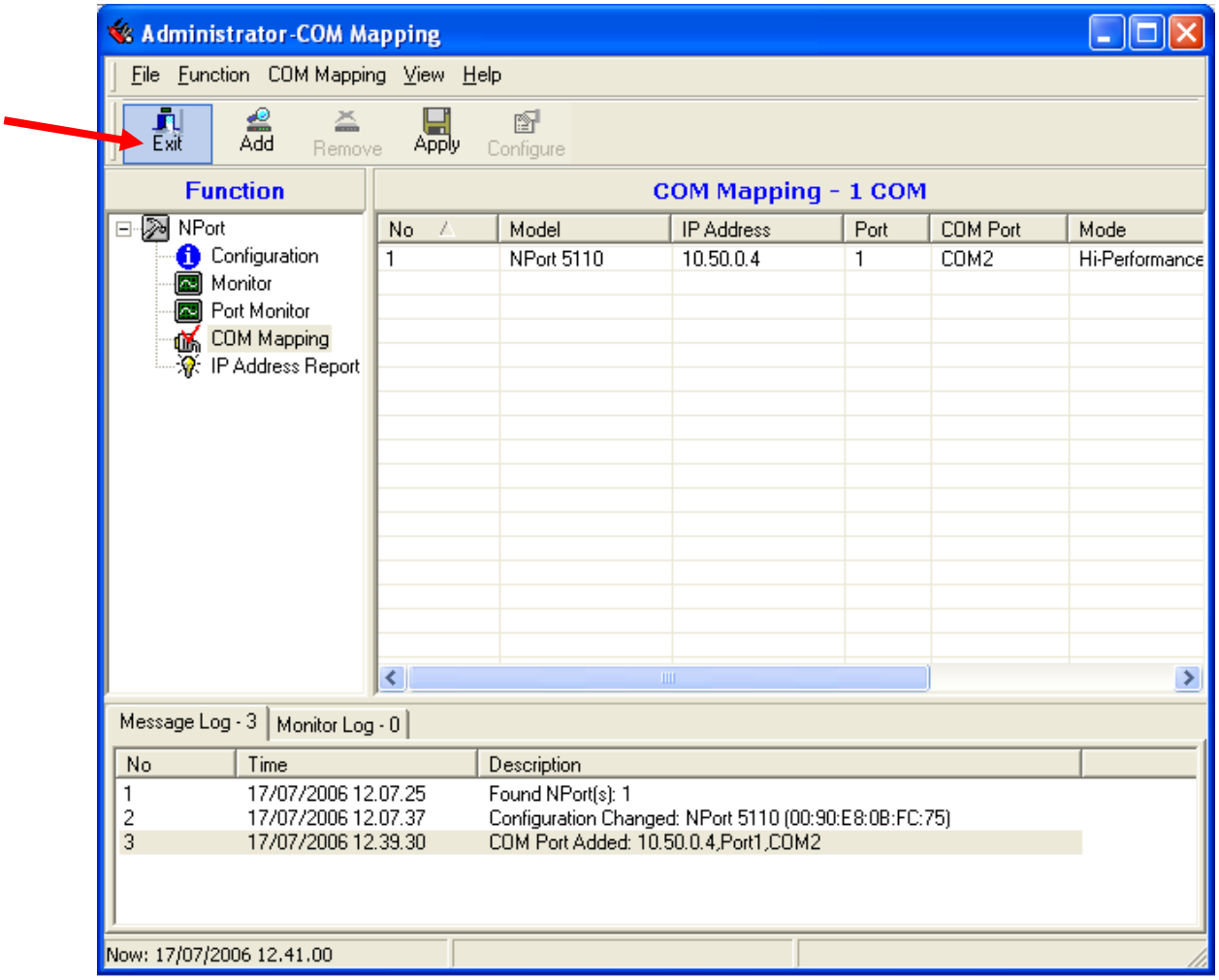
13 Bekräfta med Yes:



14 Bekräfta med OK:



15 Gränssnittet är konfigurerat. Programmet kan avslutas, tryck på Exit:



Rekommendationer vid funktionsfel mellan omvandlaren RS232/Ethernet och datorn (PC)

- Kontrollera att det installerade programmet NPort Administrator Suite är kompatibelt med Antivirus eller Firewall program som eventuellt installerats i PC.

- Kontrollera med hjälp av DOS kommandot “ping” att tilldelad IP adress för omvandlaren RS232/Ethernet är unik.

- Om det inte går att nå omvandlaren RS232/Ethernet genom programmet NPort Administrator Suite gör du så här.

    - Kontrollera att omvandlaren kan nås via en PC kopplad till samma HUB/SWITCH som den är ansluten till.

    - Kontrollera att omvandlaren kan nås via HUB/SWITCH servern som den är ansluten till.

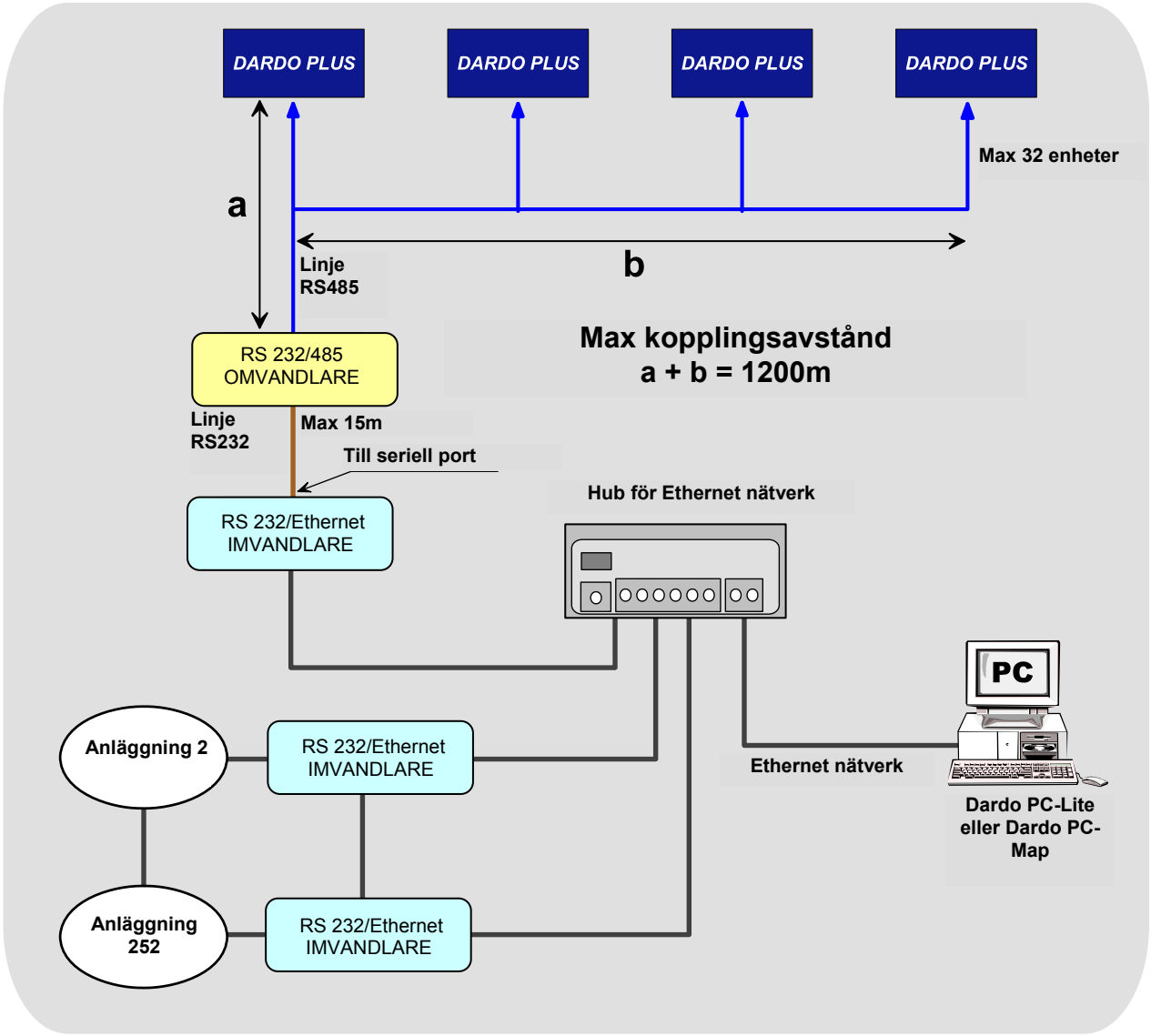
    - Om möjligt, radera tabellen ARP i HUB/SWITCH som omvandlaren är ansluten till eller som sista försök,. starta om HUB/SWITCH och kör nåbarthetstesterna en gång till.

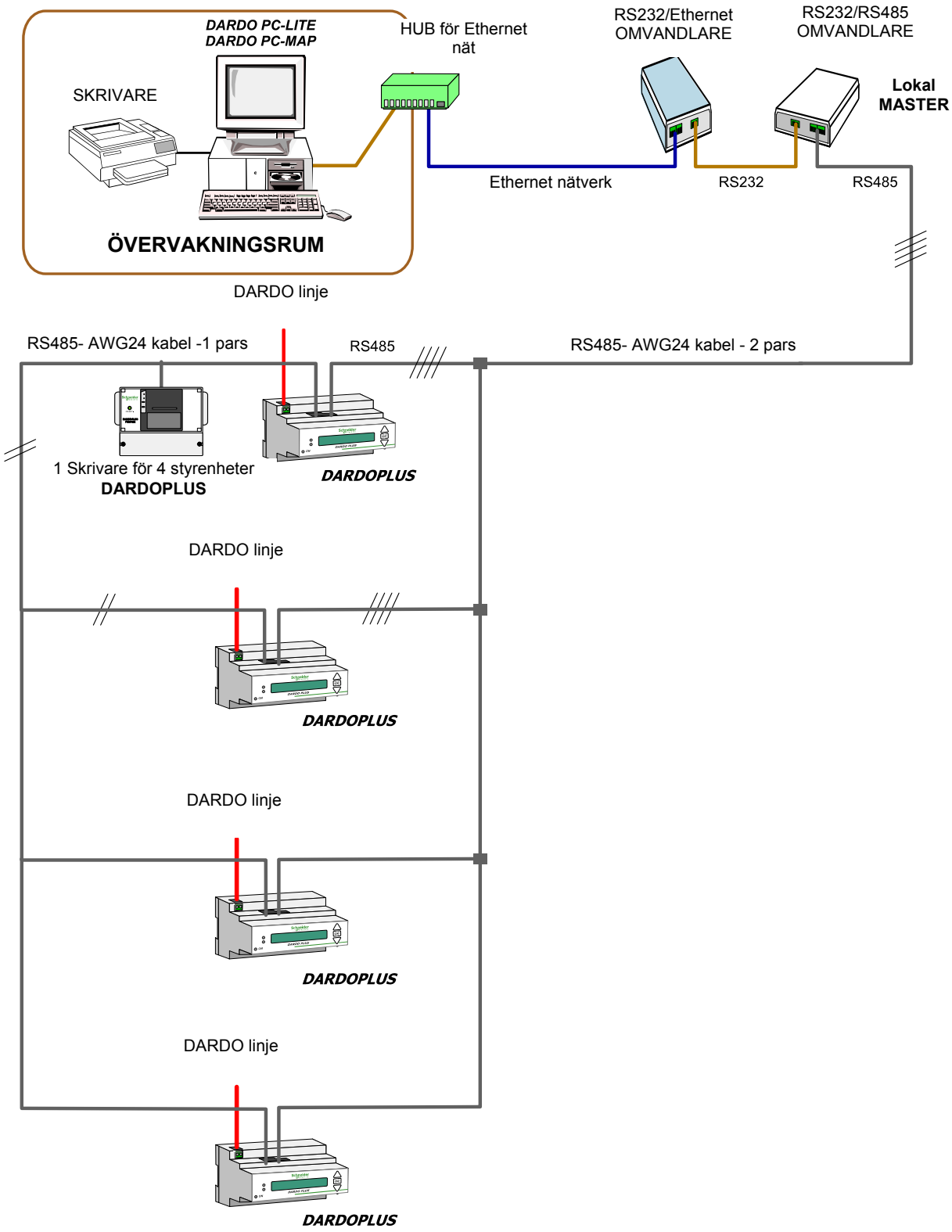
Bilagor

Max tillåten kablingsavstånd

Märk! Övervakningssystemet kan montera upp till 256 nödbelysningsanläggningar (minus antalet seriella portar i datorn).

Exempel på övervakningssystem




DARDO PC-LITE
DARDO PC-MAP
SKRIVARE
ÖVERVAKNINGSRUM
HUB för Ethernet nät
RS232/Ethernet OMVANDLARE
RS232/RS485 OMVANDLARE
Lokal MASTER
Ethernet nätverk
RS232
RS485
DARDO linje
RS485- AWG24 kabel -1 pars
RS485
RS485- AWG24 kabel - 2 pars
1 Skrivare för 4 styrenheter DARDOPLUS
DARDOPLUS
DARDO linje
DARDOPLUS
DARDO linje
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Schneider Electric Industries SAS
89 boulevard Franklin Roosevelt
F-92500 Rueil Malmaison (France)
tel : +33 (0)1 41 29 85 00

http://www.schneider-electric.com

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